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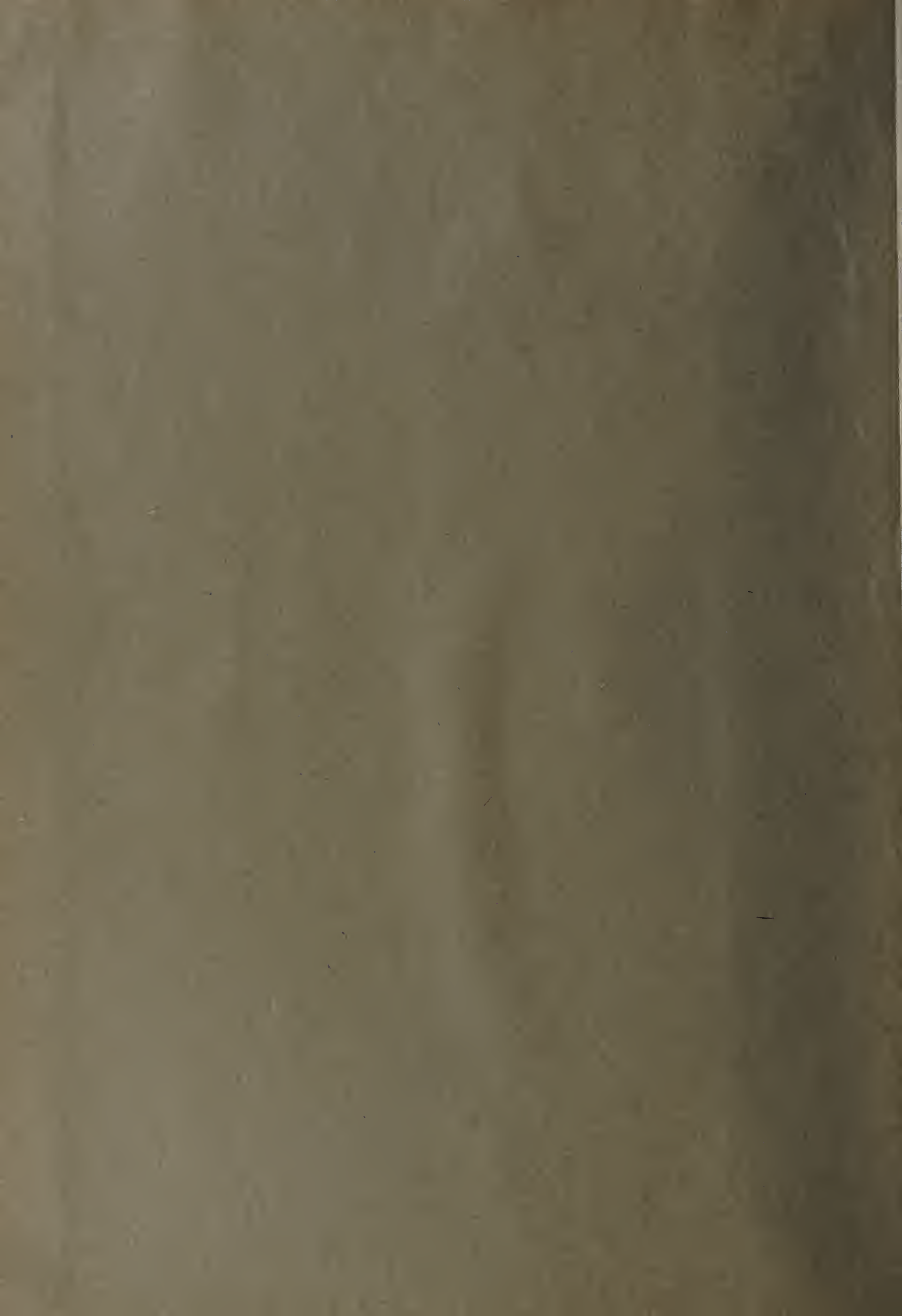
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THE AMERICAN FOOD JOURNAL



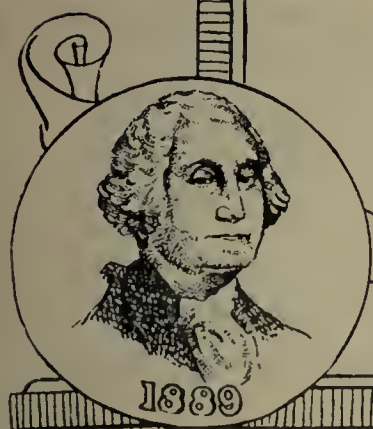
VOLUME NINE
NUMBER ONE

Chicago, January, 1914

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THE AMERICAN FOOD JOURNAL

There is no higher art than that which tends toward the improvement of human food.—Beecher.

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The ownership of The American Food Journal is vested solely in the officers of the company. No person, firm or corporation, either directly or indirectly connected with the business it represents, has any share in its ownership or voice in shaping its policy which has in view at all times the best interests of the field it serves. It aims to discuss all subjects fairly, and to furnish its readers information concerning the progress and development of the food industries. It will answer any questions concerning the business to the best of its ability, and it asks its readers in all parts of the world to aid it with inquiries and suggestions, to which it will give prompt and earnest consideration.

VOLUME IX.

JANUARY, 1914.

NUMBER 1.

An Investigation in Fact

WHEN most of the active business men of today were school boys, a group of men at the stock yards of Chicago were perfecting a business organization whereby the meat products of the country could be handled more economically than had been done previously.

That organization developed until today it is able to put down its meat products to the consumer at such a price as to make the little country slaughter house a thing of the past. The big packers of Chicago have been able by reason of their economies to go into the country adjacent to our small towns, buy cattle, in sight of the old country slaughter house, ship them to the stock yards and send back the dressed beef at such a price as to make competition from the small country slaughter house impossible.

A great hue and cry went up from the academic folk who would regulate business. The packers were driving the small houses out of business, and in the next breath they shouted about the high cost of meat products and charged the advance to manipulation by the packers!

An investigation must be had! And there was an investigation.

What was this investigation. A lot of government secret service men were sent out to get evidence upon which the packers might be convicted of doing something wrong.

Now comes Secretary Houston of the department of agriculture with a proposition to conduct an investigation to determine the real questions involved in the economic production and distribution of meat. This is not to be a police hunt for incriminating evidence but a calm, fair investigation of facts by capable men of known integrity.

Such an investigation as Secretary Houston has set afoot will be welcomed by the packers. They will be able to show that years of work by the best men money could get and by a liberal expenditure of money in other ways, a most economical organization has been

developed. The investigators will find that by reason of their perfected organization, they are able to pay dividends from the by products which in the very nature of things the small packer is forced to throw away. The investigators will find economies in the buying departments, the killing and packing departments and in the distributing departments, not possible for the small packer in the country to put in force.

The investigators will find high priced chemists at the stock yards looking for something—something that may enhance values of what has hitherto been regarded as waste. They will find many things these same chemists have discovered in the past and pointed the way to putting them to profitable use.

A chemists' department with its expensive laboratories is a thing not to be thought of except by a business concern of large proportions.

In short the investigators will learn what the packers knew many years ago, viz., that the small country slaughter house has been forced out of business through the economies created and maintained by the perfected organization of the large packers. They will find too, that the high cost of meat is not due to any manipulation, but is the result of the increased value of farm land and the consequent increased cost of raising beef cattle.

We can legislate the small country slaughter house back into existence but to do so we must kill off the economies practiced at the big stock yards of the country and raise the cost of beef to the consumer so as to make it possible for the old time slaughter house to exist.

It is more than likely that the investigators will find that meat is being put on the market by the packers at the lowest possible cost so low as to defy competition from any known source.

The investigation will do good because it promises to be fair and carried on in such a way as to discover facts the public should know. It will tend to allay self constituted committees afflicted with hysteria from

disturbing business and making the consumer dissatisfied.

The committee in charge of the investigation is composed of the following well known public men: B. T. Gallow, Assistant Secretary of Agriculture, chairman; Dr. H. J. Waters, president Kansas State Agricultural college; Professor C. F. Curtiss, dean and director Iowa State college; Professor H. W. Mumford, professor of animal husbandry, University of Illinois; Dr. A. D. Melvin, chief bureau of animal industry, United States Department of Agriculture; Dr. T. N. Carver, director rural organization service, United States Department of Agriculture.

CORN SYRUP COMPLIES WITH THE LAW.

AN interesting decision was recently rendered in the State Courts of Kansas with reference to the powers imposed upon the State Board of Health in the enforcement of the food law of that state. Dr. S. J. Crumbine, chairman of the State Board of Health, decided that the sale of a certain table syrup, prepared from corn syrup, molasses and sorghum, was illegal in that state because the percentages of the ingredients were not stated upon the labels. The manufacturer refused to accept the views of Dr. Crumbine, contending that the law contained no provision as to a declaration of percentages and that it conferred upon the Board of Health only the power to issue rules and regulations covering items provided for expressly in the law. Dr. Crumbine claimed that he had the power to enforce a declaration of the percentages and insisted that the percentages be stated upon the label—the label reading, “Prepared from Corn Syrup, Molasses and Pure Country Sorghum.” The matter was taken into court, and the fact brought to light that although the issue was limited as to whether or not the manufacturer was compelled to state the percentages of the ingredients on the label, Dr. Crumbine had raised a question in his answer as to the propriety of the name “Corn Syrup.” The court, therefore, first took this matter into consideration, and held that the decision of the three secretaries, known as F. I. D. No. 87, was valid, and further that the question had been settled by the Supreme Court of the United States in the Wisconsin Corn Syrup cases. The court also found for the manufacturer on the percentage question, holding that the State Board of Health had exceeded its authority in demanding a declaration of the percentages. The court summed up its conclusions as follows:

Rule 6 of the State Board of Health is not invalid because the power under which the same was made was a delegation of legislative authority of the board.

The Board of Health, within the limits prescribed by the food and drugs law and for the purpose of preventing adulteration and misbranding, may require manufacturers of proprietary foods to state on the labels the names and percentages of the ingredients used, but it may not do so when such requirement conflicts with the terms of the law itself.

The syrup manufactured by the plaintiff is a compound known under its own distinctive name and the label is not on its face deceptive or misleading. Such label is sufficient under the terms of the Kansas food and drugs act.

The Kansas food and drugs law and the Federal law on the same subject being practically identical,

it cannot be said that the former covers ground not included in the latter within the rule stated in *Savage vs. Jones*, 225 U. S. 501.

Inasmuch as plaintiff's syrup is an article in interstate commerce and the designation of the same on the label as “corn syrup” being sufficient under the decision of the Federal officials, the State Board of Health cannot require such designation changed to “glucose” (*McDermott vs. Wisconsin*, 228 U. S. 115).

People who take more than a passing interest in pure food are pleased to see our food officials exerting themselves to keep unwholesome products off the market and prevent unscrupulous manufacturers from deceiving the public by the use of labels. But the sticklers who object to such a distinctive name as corn syrup for a wholesome product appear, at least, to have a habit of going out of their way to make trouble for which there is no recompense. There would seem to be no good reason for compelling a manufacturer to use the approbative word glucose where the more expressive term corn syrup may be used without doing any one an injury.

Decisions such as the above are necessary for there has been a tendency among some food officials to read things into the law, through rules and regulations, which the legislature never put there. There can be no question but that a food commissioner has the right to issue rules and regulations upon such subjects as are covered by the laws of his state, but if he undertakes to go outside of the law he will find that the courts are not in sympathy with him. What puzzles us though, is why the “Corn Syrup” issue was dragged into this case when it was simply a question as to whether or not percentages must be declared on the labels of table syrups.

BLOWN IN THE BOTTLE.

AS. MITCHELL, secretary to the committee on regulations net weight and volume law, advises a correspondent as follows:

“Although the regulations for the enforcement of the weight and volume amendment to the food and drugs act have not as yet been issued, there appears no objection to the statement of volume being **blown** in the glass, but this statement must be plain and conspicuous. I desire also to call your attention to the fact that the law does not require the capacity of the container to be given but the quantity of the contents.

This, says the correspondent, is very gratifying to us, as indicating that in all probability the statement of volume when blown in the glass will not need to be printed in the label.

You see we use the same label very often for different sizes of bottles and it would be most inconvenient to have to carry a separate label for each of the different sizes of bottles.

It should be a source of gratification for manufacturers to know that the government is not disposed to put a hardship on them by putting them to needless trouble and expense. What the authorities are concerned with as pointed out by Mr. Mitchell is the quantity of the contents rather than the capacity of the container. If the manufacturer can plainly show in the blown bottle the quantity of the contents, he will, it seems, answer the requirements of the law.

BARS TUBERCULAR COWS.

HEREAFTER none but cows certified as free from bovine tuberculosis shall be permitted to come into the state of Illinois from nineteen states under suspicion. This is the result of a proclamation issued by Governor Dunne at the demand of the state live stock commission.

The states ruled against as set out in the executive proclamation are: New York, Pennsylvania, Virginia, West Virginia, Kentucky, Tennessee, Ohio, Indiana, Michigan, Wisconsin, Minnesota, Iowa, Missouri, Arkansas, Oklahoma, North Dakota, South Dakota, Montana and Texas.

Investigations made show that there is unusual prevalence of bovine tuberculosis in the states specified in the proclamation and that the condition of affairs justifies the embargo which has been raised by Illinois against its sister states.

Governor Dunne was advised by the live stock commission that serious conditions exist throughout the state, particularly in the vicinity of Chicago, necessitating the extreme measures taken by the issuance of the executive proclamation.

Cattle shipped into the state for immediate slaughter do not fall within the rule of the proclamation, which runs only against cattle imported for dairy purposes.

Governor Dunne by the course he has taken has earned the gratitude of the people of the state, who have a right to have milk from cows free from tuberculosis. The women of the state who are particularly interested in child welfare should give especial thanks for they have tried for years to get milk fit for their children to drink. There never was any good reason why they should not have had it, except perhaps that the barring of tubercular cattle from the state would touch the pockets of men who made a business of dealing in the diseased cows, which were denied a habitat in other states.

This publication has for a long time urged the disbarment from the state of Illinois of tubercular cattle. It is a pleasure, therefore, at this time to make complimentary reference to the recent act of Governor Dunne by which a good measure of protection will be afforded against tubercular milk. It is well known that the tubercular test is not infallible. The test may fail at one time and at a later period may react. But this is not a reasonable objection to the tubercular test, although it has been set up as a reason why it should not be applied officially. An occasional cow may get by the inspectors but for the most part infected cows will be discovered; and those which do not react on the first test may be discovered later.

Illinois has been rather tardy in taking up the work of giving the children of the state a supply of milk free from tubercular infection, although for several years the attention of the administration has frequently been directed to the necessity for such work. The cattle dealers objected and some of the dairy men objected because under suitable regulations it would be no longer possible to buy cheap cows forced out of other states.

Soon after Governor Dunne went in office he had an exhaustive investigation made under the direction of the live stock commission, and upon receipt of the report of this body he issued a proclamation against further importation into the state of tubercular cows to be used for dairy purposes. Under the

proclamation cattle are not barred when shipped into the state to be killed immediately.

There is no good reason why the new rule should work to increase the price of milk, although some of the dairy men have advanced this argument against the issuing of the governor's proclamation. However, if it should develop that the cost of the production of milk shall be materially increased, necessitating an advance in price to the consumer, it were better to pay this increased price than to feed the helpless children of the state tubercular milk.

AMERICAN MEAT EATERS.

IN spite of the fact that the price of meat has advanced more than seventy-three per cent during a period of ten years ending with the year 1909, the consumption of beef per capita varied hardly a pound when comparing the figures of 1899 with those of 1909. The average production per capita of dressed meat in the United States in 1909 was 105 pounds as compared with 106 for the year 1899. The production of supply for both years was 107 pounds per capita if the total production of all meats is considered.

These figures are furnished by Director W. J. Harris of the bureau of the census, department of commerce, and they may be regarded as being practically accurate.

From this showing it appears that it is very difficult for the American meat eater to break away from a life long habit, in spite of the fact that there is good reason for him to do so. American men and women come honestly by their meat eating habit, for their fathers before them have been meat eaters and were not pressed with the necessity of modifying the habit. Americans of today, with the fixed habit of eating great quantities of meat, see plainly enough the need for a modification of this habit on account of the great advance in price and the probability of a still higher price.

Men of large means may have no reason to cut down their use of meat because of the high cost, but the great body of the people realize that present meat prices put this food product in the class of luxuries and they feel the necessity of getting out of their old habit of indulging their appetites for meat.

Of course they will cling to their habit, and they will continue to scold about the high cost of meat and will lend their aid to any form of legislation that promises at least to permit them to eat as much meat as they wish to eat at prices of other days. But legislation is not likely to have much effect on the cost of meat. The law of supply and demand will continue to operate in spite of legislation.

In some way the great body of the people will have to get out of their present habit of eating meat, because they simply cannot afford to indulge their appetite in the future as they have in the past.

Europeans were forced to learn long ago that meat was a luxury to be indulged in with extreme moderation. They have learned to live without it. In fact the present generation of Europeans of the middle class never acquired the meat eating habit that has such a hold on the American people. It is no hardship on these people to forego the eating of great quantities of meat. But the American meat eater, according to authoritative statistics, is making little headway in modifying a habit in which he feels he cannot afford to indulge.

COURTS IN CONFLICT.

ONE of our Supreme Courts decrees that where oleomargarine gets a particular color as a result of the ingredients from which it is made, it answers all the requirements of the law.

The Supreme Court of another state rules that vinegar made from a variety of ingredients that has the color of cider vinegar violates the law.

It does not matter which of these decisions is right, the fact remains that manufacturers are confounded and do not know how to keep within the law no matter how much they may try to do so.

In the oleomargarine case the contention was that any yellow product that looked like butter was an imitation and a fraud in spite of the fact that the product was sold under a label which declared explicitly what the product was.

The court ruled that if in the process of the manufacture of oleomargarine the ingredients used resulted in the production of a yellow product that looked like butter the manufacturer could not reasonably be asked to destroy that color so as to avoid resemblance to a competitive product.

To the lay mind this looks like a reasonable ruling. The law and the courts hold that no man may make a product that looks like butter, purposely adding ingredients to give his product color and thus deceive the consumer. But the logic of the court's ruling is that the makers of oleomargarine shall not be put out of business in order to benefit the competing butter interests. The ruling is that the oleomargarine maker shall play fair; that he shall not deceive the public into buying his product for butter; that in order to protect the consumer he shall state on his label just what the product he offers for sale is, and further that he shall not artificially color his product in imitation of butter.

The vinegar case, decided against the manufacturer of a type of vinegar that looked like cider vinegar, was based upon an opposite line of reasoning than that which prevailed in the oleomargarine case referred to. This particular vinegar was a blend of fermented sugar vinegar and distilled grain vinegar. The grain vinegar is a white vinegar while the sugar vinegar is very dark and of a heavy character. The blend of the two, in the judgment of the manufacturer, makes a very desirable table vinegar. But the color in the opinion of the court was such as to bring the product within the rule against imitations. It looked like cider vinegar, and although the label distinctly stated what sort of vinegar it was, the court ruled against the product, simply because of its color. What the court no doubt had in mind was that the sugar vinegar was used for the express purpose of creating a deception. The wholesomeness of the product was admitted and its quality was not even considered. The mere fact that it looked like cider vinegar put it under the ban, although the manufacturer stated in substance on his label that it was not cider vinegar.

EDUCATING THE INSPECTORS.

COMMISSIONER J. Scott Matthews of Illinois has a great notion of the value of educational methods. Quite recently he made a campaign among the women's clubs of the state, preaching the value of co-operation. His plan has been voted a great success. During the closing days of the old year he called in his inspectors for

a little educational symposium. To make it especially interesting he invited Dr. S. J. Crumbine of Kansas to meet his force of inspectors and talk to them on matters which experience had taught him was of peculiar value. His chief subject was the house fly.

Dr. Crumbine has been fighting flies for a number of years and naturally he had much to say on the subject of the dangerous little fly, that was interesting, and if his knowledge shall be appropriated and put to use in the state of Illinois, that state will be distinctly benefited.

Other subjects discussed at the meeting were:

"Slaughter Houses—What to Look for and How to Find It," Mr. Hoey; "Candy Factories," Mr. Lindstrom; "Oleomargarine—Information Necessary to Convict and How to Get It," Mr. Hobson; "When and How to Take Milk," Mr. Kennicott; "Sanitary Inspection and Report," Mr. Lewis; "Wholesale Groceries," Mr. Peterson; "Women's Clubs—Benefit of Their Co-operation and Courtesy Due Them," Dr. Wiedel; "What to Do When Not Definitely Assigned," Mr. Polzin; "Dairy Inspection," Mr. Wandrack; "Hotels, Restaurants and Lunch Rooms," Mr. Spaeth; "Municipal Health Officers—Their Assistance and How to Secure It," Mr. Kjellquist; "Candy and Fruit Stores, Ice Cream Parlors and Soda Fountains," Mr. Johnston; "How to Take Samples of Stock Food," Mr. Anderson; "Canning Factories," Mr. McGrew.

NOT RESTRAINING TRADE.

PROBABLY the largest manufacturer in its line is the American Can Company, and because of its size this company has been picked as one of those concerns that are known as trusts. Because of this a suit has been instituted calling upon the company to defend itself against the charge of being a trust in violation of the Sherman act. While the American Can Company is a big concern, it is easy to determine that it is in no sense a monopoly. There are in the country other big concerns that give this company the most bitter and persistent competition. There are several million-dollar concerns, and one company which is credited with having a capital of seventeen million dollars.

The testimony no doubt will develop the fact that the American Can Company, while the biggest, is not a monopoly in the sense of the government's contention. If mere bigness is an offense against the law, the American Can Company might be judged guilty, but if the question of monopoly or restraint of trade is the essence of the government's inquiry, it will no doubt be clearly shown that the American Can Company has to fight for its trade just as its powerful competitors do. On its face, the suit is an absurdity calculated to do injury to a concern that is operating within the law.

FOLLOWING is part of the program which is being prepared for the convention of the National Cannery Association, to be held in Baltimore on February 2-6: Invocation, Cardinal Gibbons; address, Dr. Alsberg; address, Secretary Redfield, "Foreign Trade—How to Get It and How to Keep It." Congressman J. Harry Covington will speak on the legal aspect of the pure food law. The governors of Maryland and Delaware, two of the most important canning states in the Union, will deliver addresses.

Decisions Favoring Colored Oleomargarine

SLIGHT YELLOW COLOR DERIVED FROM THE NATURAL INGREDIENTS OF THIS PRODUCT DECLARED ADMISSABLE

ON December 16 the Court of Appeals handed down a decision in the case of *People v. Guiton*, which case has been in the courts for many years and has been treated as a test case involving the right of sale of oleomargarine in package form, with a slight yellow color, derived from its ordinary and natural ingredients.

The undisputed evidence in *People v. Guiton* established that oleomargarine, made from its natural, usual and ordinary ingredients, has a slight yellow color. The attorney general claimed that the fact that the product of any color of yellow, causing it to resemble some butter, made its sale illegal in this state.

The court holds in its decision that such a construction of the statute would render it unconstitutional; that the statute only prohibits the designed and intentional coloring of oleomargarine by artificial or other means and cannot constitutionally prohibit the sale of the product having a yellow color derived from the use of usual and ordinary ingredients.

It is not generally known that in 1907 the legislature passed what is known as the "Package Law," providing that all oleomargarine must be sold in package form, labeled, branded and stamped "oleomargarine." There is, therefore, no chance whatever of any deception to the public in the purchase of oleomargarine.

Existing statutes also require that if oleomargarine is used in hotels or boarding houses, it is necessary that signs should be displayed stating "oleomargarine used here," and menu cards must state the fact.

That oleomargarine is a wholesome and healthful food product has been publicly stated and testified to by practically all food chemists, including Dr. W. H. Wiley, former chief of the Bureau of Chemistry, and Professor Chandler, formerly of Columbia College, who was identified with the original Marks case in this state.

The decision is also of great importance to the retail dealers throughout the state, and especially to those consumers whose means are not sufficient to enable them to pay the high prices which butter commands in the present market and who, by reason of that fact, frequently do without butter.

No legislature, under the present day high cost of living conditions, can afford to put any bars upon the sale of any wholesome and healthful food product offered to the public on its own merits and under its own name, because of the effect of an open market upon some other food product.

The following is a copy of the decision:
Court of Appeals. M. Cha. WB. CH. J. G. His. Col.
The People of the State of New York,
Respondents,
vs.
John J. Guiton, et al.,
Appellants.

Appeal from an order of the Appellate Division of the Supreme Court in the first judicial department, entered October 26, 1912, reversing a judgment in favor of the de-

fendants entered upon a dismissal of the complaint by the court on trial at Trial Term, a jury having been waived. The appellants have given a stipulation for judgment absolute upon affirmance as provided in Section 1337 of the Code of Civil Procedure.

The nature of the action and the facts, so far as material, are stated in the opinion.

William C. Breed for appellants.

Thomas Carmody, attorney general, for respondents.

Collin, J. The action, instituted by the commissioner of agriculture of the state, is to recover from the defendants, constituting a mercantile firm, a penalty for a sale of oleomargarine, alleged to have been manufactured in imitation or semblance of natural butter, in contravention of Section 38 of the Agriculture Law. (Consolidated Laws, Chap. 1 [Laws of 1909, Chap. 9], Sections 30, 38.) The decision of the trial court directed, under the findings of fact and conclusions of law, the judgment dismissing the complaint on the merits which was reversed by the Appellate Division in the order appealed from.

Section 38 is: "Manufacture and sale of imitation butter prohibited. No person by himself, his agents or employes, shall produce or manufacture out of or from any animal fats or animal or vegetable oils not produced from unadulterated milk or cream from the same, the article known as oleomargarine or any article or product in imitation or semblance of natural butter produced from pure, unadulterated milk or cream of the same; or mix, compound with or add to milk, cream or butter any acids or other deleterious substance or any animal fats or animal or vegetable oils not produced from milk or cream, so as to produce any article or substance or any human food in imitation or in semblance of natural butter, nor sell, keep for sale or offer for sale any article, substance or compound, made, manufactured or produced in violation of the provisions of this section, whether such article, substance or compound shall be made or produced in this state or elsewhere. Any person manufacturing, selling, offering or exposing for sale any commodity or substance in imitation or semblance of butter, the product of the dairy, shall be deemed guilty of a violation of this chapter, whether he sells such commodity or substance as butter, oleomargarine or under any other name or designation whatsoever and irrespective of any representations he may make relative to such commodity or substance."

The defendants sold a package of oleomargarine to an agent of the agricultural department of the state. It was within the maximum size and was sealed, wrapped and labelled in all respects as prescribed by the agricultural law (Sec. 41). It was sold as and for oleomargarine and there was no deception or attempt to deceive in the sale. The ingredients composing it, oleo oil, cotton-seed oil, neutral oil, cream, milk, butter and salt, were the recognized and lawful substantive ingredients of oleomargarine and were mixed or compounded in the usual way. It had a shade of yellow color which was derived *solely* from these ingredients in a natural condition. No ingredient was for the sole purpose of producing the shade of yellow. Some natural butter has a shade of yellow identical with that of the oleomargarine sold by the defendants.

The attorney general, in behalf of the state, asserts that oleomargarine in its natural condition is white; that the identity of color of oleomargarine and of natural butter proved the manufacture of the oleomargarine "in imitation or semblance of natural butter produced from pure, unadulterated milk or cream of the same" and, therefore, in violation of the section, and the sale of it was by the section inhibited and penalized. He argues that the legislative intention was to protect against deception the buyers and consumers of butter by compelling the manufacturers of oleomargarine to put into it only such ingredients, or the usual ingredients having only such color, as will give it a color other than that of natural butter. The counsel for the appellants asserts that the legislative intention was to interdict the use of an ingredient solely to give the product the color of natural butter and the designed and conscious selection of the substantive ingredients of such color or colors in such

proportions as will effect an imitation, in the matter of color, of natural butter.

The legislative intention, if expressed and if lawful under the Federal and State Constitutions, is the law obligatory upon the courts as well as upon every citizen. Our duty is fulfilled by ascertaining the legislative intention and applying it, if lawful.

Additional proven facts are pertinent and useful. Of the established ingredients, as stated, of oleomargarine, oleo oil, which is about one-half of the product, has naturally and in the market a color varying from a cream white through the lighter shades of yellow to a medium yellow; cottonseed oil has varying shades of yellow color and may be white or cream white only through an artificial process; cream has a color ranging from a cream white through the lighter shades of yellow; butter has a color ranging from cream white to to the deep and dark shades of yellow. An expert witness defined the color "cream white" as yellow white, or white having a tint of yellow. It follows, and the finding of the trial court is, that oleomargarine composed of established ingredients in natural conditions and colors and compounded in the usual and ordinary way has a yellow shade. It has a cream white color when oleo oil, cream and butter of that color and cottonseed oil artificially brought to that color are used. It is not within the findings of fact of the trial court, or the evidence presented by the record, that the light shade of yellow of the oleomargarine in question was caused by the selection or manipulation of the ingredients in it with the thought, purpose or intention of giving it the color of butter or any predetermined color. A finding of fact is that the resemblance of the oleomargarine to natural butter "was a resemblance in inherent qualities common to both butter and oleomargarine, and was not the result of any artificial means or selection employed in the manufacture of said oleomargarine."

Section 30 of the Agricultural Law contains definitions applicable to this case: "The term 'butter' . . . means the product of the dairy, usually known by that term, which is manufactured exclusively from pure, unadulterated milk or cream or both with or without salt or coloring matter." Oleomargarine is an article "in the semblance of butter" "not the usual product of the dairy and not made exclusively of pure or unadulterated milk or cream, or any such article or substance into which any oil, lard or fat not produced from milk or cream enters as a component part, or into which melted butter, or butter in any condition or state, or any oil thereof has been introduced to take the place of cream."

There is not needed now, after oleomargarine has for several decades been recognized by the legislature and the courts as a wholesome, nutritious and economical substitute for butter, a review of the legislation and the judicial decisions interpreting it to demonstrate that the legislature cannot absolutely prohibit the manufacture or sale of it (*People v. Marx*, 99 N. Y., 377; *People v. Arensberg*, 103 N. Y., 388; *People v. Arensberg* 105 N. Y., 123; *Schollenberger v. Pennsylvania*, 171 U. S., 1) or to support the conclusion that the legislature did not intend to prohibit it through the enactment of Section 38. Indeed other sections of Article 3 of the Agricultural law of which Section 38 is a part disclose the affirmative legislative intention that it should be manufactured and sold under regulative restrictions and requirements, to take the place of butter (Sections 39, 40, 41, 53, 54). We may, therefore, assert as in effect the attorney general does with clear confidence that the feature of absolute prohibition was not within the legislative intention. The legislature may, however, enact laws to prevent fraud and deception, to suppress false pretenses and promote honesty and disclosure in relation to the production and selling of articles of food. (*People v. Biesecker*, 169 N. Y., 53; *People v. Girard*, 145 N. Y., 103; *People v. Luhrs*, 195 N. Y., 377.) The provisions we are considering were enacted under this legislative right. We think, however, that a shade of yellow given oleomargarine through the use of the recognized substantive ingredients in a natural and primary condition, identical, without predetermination or design, with a shade of yellow possessed by natural butter does not effect within the legislative intention or the purview of the statutory provisions, a deception or false pretense and is not prohibited.

The legislature in its definition of oleomargarine, already quoted, recognized the fact that it, as made from the known ingredients in a natural condition, would be "in semblance of butter." They did not inhibit this mere semblance as a fraud or deception, inasmuch as they recognized and permitted its

existence and the marketability of the oleomargarine of which it was an attribute. They did not require that in the manufacture of oleomargarine devices or means to make it distinguishable in appearance from natural butter be adopted. Whether such requirement, if prescribed, would be constitutionally lawful we do not now determine. While butter does not have a fixed and unvarying yellow color, it has, in commerce, a shade of yellow, natural or artificial, deeper and more pronounced than that of oleomargarine in a natural state. Some butter is of as light a shade of yellow as is some oleomargarine in a natural state, yet the shades of butter generally and commercially speaking, are deeper and more varied. The fact that butter may lawfully be artificially colored facilitates such result. There is, therefore, in butter a range of shades of yellow accessible, as samples, to advantageous and profitable imitation by the manufacturers of oleomargarine. Imitation may be effected, in either of two ways, at least; the one, the use of artificial coloring matter which is not an essential ingredient, but serves the sole purpose of achieving the imitated color; the other, the selection of the ingredients as to color and proportions, or both, with the predetermination and purpose of producing the imitated color. The purpose of Section 38 was to forbid the use of either of these ways, or any other analogous way, of causing oleomargarine to be in imitation or semblance of butter. It was not intended to and it does not prohibit in oleomargarine the semblance in color to butter which results, not from imitation, but from a selection of ingredients disassociated with the design or intention to produce it. It does not compel the makers of oleomargarine to consciously choose the ingredients having a shade of color which will not produce that of butter.

The decision in *People v. Arensberg* (105 N. Y., 123; 103 N. Y., 388) carries us far toward such conclusion. In the Arensberg case the defendant was indicted for a violation of the statutory provisions here under consideration and which then were in Section 7 of Chapter 183 of the Laws of 1885. Originally and at the first trial he was convicted upon the mere finding of the jury that he sold oleomargarine. He was granted a new trial by us, we saying at that time that the guilt of the prisoner did not and could not be in the simple manufacture and sale of the article, and depended upon further inquiry whether it was manufactured in imitation or semblance of butter, whether by the use of ingredients not necessary or essential to the article itself it was sought to accomplish such imitation or resemblance, "and stating that the question in a given case whether oleomargarine is or is not in imitation of butter is a question of fact (*People v. Arensberg*, 103 N. Y., 388). The second trial, in which proof was given that there was in the oleomargarine an ingredient solely to artificially produce the color of butter, resulted in the conviction of the defendant, which was reviewed by us. (*People v. Arensberg*, 105 N. Y. 123.) We then held that the legislature may constitutionally interdict makers of oleomargarine from resorting to devices for the purpose of making their product resemble in appearance butter, and prevent the marketing of it in such a form and manner as to be calculated to deceive. To the claim of the defendant that oleomargarine must from the nature of the ingredients resemble butter and if the manufacture of it in imitation or semblance of butter is prohibited, the manufacture of oleomargarine is made unlawful, Judge Rapallo, writing for the court, said: "We do not think that this result follows. The statutory prohibition is aimed at a designed and intentional imitation of dairy butter, in manufacturing the new product, and not at a resemblance in qualities, inherent in the articles themselves and common to both." Judge Rapallo further said: "Such artificial coloring of oleomargarine for the mere purpose of making it resemble dairy butter comes within the statutory prohibition against imitation, and such prohibition is within the power of the legislature, and rests upon the same principle which would sustain a prohibition of coloring winter dairy butter for the purpose of enhancing its market price by making it resemble summer dairy butter, should the legislature deem such a prohibition necessary or expedient."

A scrutiny of the evidence has not disclosed any evidence justifying the reversal by the Appellate Division of the findings set forth in the order of reversal. Those findings were supported by uncontroverted evidence.

The order appealed from should be reversed and the judgment rendered upon the decision of the trial court affirmed, with costs to the appellants.

COMMENTS ON THE CASE.

December 20, 1913.

Editor American Food Journal: Your communication of December 18 has just been laid upon my desk upon my return from Washington, where I have been the entire week.

I am enclosing you herewith copy of the opinion in the *People v. Guiton, et al.* You will notice that the decision is not what the first reports to the public made it, but as a matter of fact the court has held that the oleomargarine in question did not fall within the prohibitions of the statute from the fact that the evidence on the trial of the case did not show "that the light shade of yellow of the oleomargarine in question was caused by the selection or manipulation of the ingredients in it with the thought, purpose or intention of giving it the color of butter or any predetermined color" and on the further ground that "a finding of fact is that the resemblance of the oleomargarine to natural butter was a resemblance in inherent qualities common to both butter and oleomargarine, and was not the result of any artificial means or selection employed in the manufacture of said oleomargarine."

Thus you will see that the decision in this case is to the effect that the state did not prove facts enough to constitute a cause of action; that if the state had proven that the color came by a conscious selection of material for the purpose of producing the color, that it would probably have been a case of violation. The question of constitutionality is not touched.

Very respectfully,

G. L. FLANDERS,

Counsel.

December 27, 1913.

Editor American Food Journal: Enclosed please find memorandum which Mr. Breed has dictated today, and hope it will reach you in time for your publication in case you care to use it.

Yours very truly,

DANA T. ACKERLY.

William C. Breed, of Breed, Abbott & Morgan, of New York City, counsel for the oleomargarine manufacturers, when asked as to the effect of the Court of Appeals' decision in *People v. Guiton*, had this to say:

This decision determines the right of sale in New York State of naturally colored oleomargarine. One phase of the decision of greatest importance to the industry is that it officially recognizes the *fact* that oleomargarine as manufactured from recognized ingredients in their natural state and color necessarily is of some shade of yellow.

The Department of Agriculture has for years been endeavoring to close the eyes of the courts to this fact, and case after case has been brought against retailers on the theory that if oleomargarine had any degree of color its sale should be prohibited under the New York statute, which in turn prohibited the manufacture or sale of any substance "in imitation or semblance of natural butter."

There has been an utter disregard of such decisions as the *People v. Arensburg*, rendered by the Court of Appeals in 1886, and followed by many subsequent cases which hold that the legislature under this provision of the statute did not intend to prohibit the sale of oleomargarine having a resemblance to butter, which resemblance was due to the inherent qualities or natural color of the well recognized ingredients, but referred only to an artificial or designed and in-

tentional resemblance or imitation of dairy butter.

The highest court of the state now recognizes that oleo is just what Section 30 of the New York statute defines it to be: "A substance in the semblance of butter * * * not the usual product of the dairy, and not made exclusively of milk or cream."

Oleomargarine as originally patented was intended to be a butter substitute, and this necessarily required the use of ingredients which would produce a product that would resemble butter.

One reason why oleomargarine, declared by all food scientists to be a wholesome and healthful food product, has been so directly the subject of attack, is because it has been sold for butter, and the consumer thereby deceived. There is no excuse for this method of handling the product. Everyone resents deception. Oleomargarine does not require deception to advance its sale. It stands on its own merits.

In New York State the legislature regulates its sale through a well-defined package law. Oleomargarine cannot be sold except in a sealed package, labeled with its own name and the name of the manufacturer. Hence deception is practically impossible in the sale to the consumer.

This Guiton decision will bring about the dismissal of innumerable cases which have been brought by the Department of Agriculture against small retailers throughout the State of New York. These retailers could never understand what offense they could have committed in the sale of a package of oleomargarine, under its own name, on its own merits, where both seller and purchaser understood the transaction.

The decree should be of persuasive weight in other states, leading to the correct view that the sale of oleomargarine, a wholesome food product, should be regulated and not prohibited.

In fact, the courts of this state hold that its sale on its own merits cannot be constitutionally prohibited.

SIOUX FALLS OLEOMARGARINE CASE.

Oleomargarine is making rapid progress in these days of high butter prices. Not only are the sales of oleomargarine increasing by leaps and bounds, thus showing that the prejudice which heretofore existed against it is fast disappearing, but this changed attitude of the consuming public is being reflected in the decisions of the courts. It was only a few years ago that the Supreme Courts of several of the states, notably Minnesota, Missouri and Pennsylvania upheld laws forced through the legislatures absolutely prohibiting the sale of oleomargarine. Other states enacted the notorious "Pink Laws" allowing oleomargarine to be sold only when colored pink. The Supreme Court of the United States in 1897 held that as oleomargarine was a wholesome and legitimate article of food its sale and shipment into interstate commerce could not be prohibited, and also held that as the requirement of pink color was in fact a prohibition of the sale of oleomargarine, such laws were also invalid.

The yellow color which seems to appeal so strongly to the aesthetic taste in articles of this nature, has for the last few years been the principal bone of contention. The courts of late years have uniformly held that the sale of oleomargarine may be reasonably regulated, though not prohibited. Therefore, laws requiring specific labels, the posting of placards and signs where it is sold or used have been sustained, as well as laws prohibiting an artificial yellow color. So far so good. The real rub comes, however, when oleomargarine by the use of staple and recognized ingredients without resort to any extraneous or artificial substances possesses the yellow color demanded by the consuming public. While a few years back the courts seemed to consider laws requiring oleomargarine to be made in such manner as to be entirely outside the shades of yellow common to butter as merely regulatory, and in no sense prohibitive, the trend of judicial reasoning is now the other way. The highest courts of a number of the states have recently held that as oleomargarine

made from natural and essential ingredients has some yellow color, laws prohibiting any yellow color whatsoever, or prohibiting its sale if in semblance of butter of any shade or tint of yellow, are unconstitutional or should properly be construed as only meaning yellow color brought about by unnatural or artificial means.

Judge Alpha F. Orr sitting in the Municipal Court of Sioux Falls, S. D. recently sustained a demurrer to an information filed by the state's attorney alleging in the language of the South Dakota statute that the defendant sold a "substitute for butter, to-wit: oleomargarine, having a yellow color." As no written opinion was filed, we quote the complaint and demurrer in full which clearly show the issues involved:

"Martin Bergh, State's Attorney of Minnehaha County, South Dakota, being by me duly sworn on oath complains and charges that the defendant, H. G. Smith, at the said City of Sioux Falls, in said Minnehaha County, State of South Dakota, on the 11th day of November, A. D., 1913, then and there did wilfully and unlawfully keep in his possession and offer for sale a certain substitute for butter having a yellow color, to-wit: a product known as oleomargarine, said oleomargarine having a yellow color, contrary to the provisions of section 9, chapter 296, Laws of 1909, of the State of South Dakota, contrary to the form of the statute in such case made and provided and against the peace and dignity of the State of South Dakota, and prays that the said defendant may be arrested and dealt with according to law."

"The defendant in this action demurs to the complaint herein on the ground that the said complaint does not describe a public offense in that:

"First, Section 15 of chapter 163 of the Session Laws of the State of South Dakota of 1909, enacted at the same session of the legislature of said state as Section 9 of Chapter 296 of the Sessions Laws of the State of South Dakota of 1909, mentioned in the said complaint and which went into effect at the same time that said Section 9 did, permits the sale of oleomargarine which does not contain methyl, orange, butter yellow, annato, analine dye, or any other coloring matter and the said complaint does not state that the said 'substitute for butter having a yellow color, to-wit, a product known as oleomargarine, said oleomargarine having a yellow color' was a product known as oleomargarine which contained methyl, orange, or butter yellow, or annato, or analine dye, or some other coloring matter, or was a product known as oleomargarine and was artificially colored yellow so as to come within the prohibition contained in said section 15 of said Chapter 163.

"Second: Neither Section 9 of Chapter 296 of the Session Laws of the State of South Dakota of 1909, mentioned in the said complaint, nor any other law of the State of South Dakota, prohibits the sale of a substitute for butter having a yellow color, to-wit, a product known as oleomargarine, said oleomargarine having a yellow color, so far as the color of such substitute is concerned, unless such substitute is artificially colored yellow, and the said complaint does not charge that the said substitute, to-wit, the said oleomargarine, was artificially colored yellow.

"Third: If Section 9 of Chapter 296 of the Session Laws of the State of South Dakota of 1909 is to be construed as prohibiting the sale of all substitutes for butter, including the product known as oleomargarine, having a yellow color, without regard to whether such substitutes are artificially colored yellow or not, said Section 9 is unconstitutional and void in that it is violative of the provisions (a) of the fourteenth amendment of the constitution of the United States; and (b) of the provisions of Section 2 of Article 6 of the constitution of the State of South Dakota in that: (a) it would prohibit the sale of a substitute for butter having a yellow color that is not artificially colored yellow, and (b) in that it would prohibit the sale of substitutes for butter, including oleomargarine, having a yellow color, which color is the natural result of the essential ingredients from which the said substitute or the said oleomargarine is manufactured."

The demurrer having been sustained, in substance gives the opinion of the court although no written opinion was rendered.

IOWA ICE CREAM DECISION APPEALED.

Judge McHenry of the District Court of Iowa recently handed down an opinion in which he holds that that section of the state pure food law which attempts to fix a standard of butter fat for ice cream is unconstitutional.

Judge McHenry declares in his opinion that the legislature has no more right to tell the manufacturer of ice cream that his product must contain not less than 12 per cent of butter fat than it has to tell the hotelkeeper that his soup

must contain a certain amount of animal fat.

The ruling was in the appeal of the Sanders and Hutchinson Ice Cream Companies, which were charged with selling ice cream containing less than 12 per cent of butter fat.

Attorney General George Cosson, and W. B. Barney, dairy and food commissioner, announced that the ruling of Judge McHenry of Polk county against the law regulating the standard of ice cream would be appealed to the Supreme Court.

Attorney General Cosson declared that the constitutionality of practically all the Iowa pure food laws was involved and that he would add the case to the already large list in which he has fought for the constitutionality of laws which district judges have attempted to knock out. He believes a reversal can be secured that will uphold the law.

SEIZURES RECOMMENDED.

The Department of Agriculture has recommended the seizure, under the Food and Drugs Act, of the shipments indicated below. These cases will soon be tried in the courts to determine whether the seizures made by the Government are justified.

Vinegar. Five barrels of apple vinegar were seized on November 13th, at Madison, Ind., having been shipped by the Ohio Cider Vinegar Co., of Cincinnati, Ohio. It is charged that the product was adulterated and misbranded because it contained distilled vinegar or dilute acetic acid, and water was also added. Another shipment of vinegar, consisting of 28 cases, was seized on November 12th, at Kansas City, Kans., having been shipped by the Kansas City Preserving Co., of Kansas City, Mo. The Government charges that the goods were adulterated and misbranded because distilled vinegar or dilute acetic acid has been substituted for and sold as "Pure Sugar Vinegar" and "Pure Cider Vinegar."

Macaroni. One hundred and thirty-eight cases of macaroni shipped by the Atlantic Macaroni Co., of Long Island City, N. Y., were seized at Newark, N. J. The Government charges that the product was adulterated because colored with a coal tar dye to conceal inferiority and misbranded because it was labeled as though it was of foreign product.

"Saint John's Bread." Five bags of "Saint John's Bread" were seized on November 13th, at Baltimore, Md., which had been shipped by Levy & Levis Company, of New York City. The Government charges that the product consisted of a filthy, putrid and decomposed vegetable substance.

Chestnuts. Thirty-six bags of chestnuts, shipped by D. T. Boyd, Stuart Station, Va., were seized October 31st, at Washington, D. C. It is charged that the goods consist in whole or in part of a filthy, decomposed and putrid animal and vegetable substance.

Tomato Pulp. One hundred and seventy cases, each containing 6 cans of tomato pulp, were seized October 30th, at Washington, D. C., having been shipped by D. E. Foote & Co., Inc., of Baltimore, Md. It is charged that the goods consist in part of a filthy and decomposed vegetable and animal substance.

"Wine of Chenstohow." Forty cases of "Wine of Chenstohow" were seized on November 11th, at Chicago, Ill., having been shipped by A. Skarzynski & Co., of Buffalo, N. Y. Misbranding is charged because the product is labeled as though it were an article of foreign manufacture and the alcoholic content is not declared upon the wrappers of the bottles. Misbranding is also charged because it is not genuine "Wine of Chenstohow," a wine made in Chenstohow in Russian Poland, but is a sweetened wine made in Buffalo, N. Y. None of these cases has yet been tried.

C. Harper, member of the State Live Stock commission of Michigan, was at Flint recently in company with City Dairy and Food Inspector Friar rounded up nine cows afflicted with tuberculosis. The animals were found in herds near the city and will be disposed of in accordance with the state law which provides a bounty for every cow killed under this ruling unless the flesh is found to be fit for human consumption.

Bert E. Sherman, chief of the food bureau of the Chicago department of health, died December 20 at his home in Chicago, after a short illness. He had been at the head of the food bureau for seven years and directed the inspection of turkeys last Thanksgiving season, condemning several thousand pounds of decayed cold storage fowl. He is survived by his wife and two children.

Recent Food Law Decisions

COMPOUND VINEGAR ILLEGAL IN ILLINOIS.

The Supreme Court of Illinois in a decision rendered December 19, 1913 (*People vs. Henning*), holds that a compound vinegar, consisting of approximately 75 per cent of distilled vinegar and 25 per cent of so-called sugar vinegar made from molasses, was colored in imitation of cider vinegar. The court says that the evidence disclosed an intentional effort to produce the color of cider vinegar by the selection of such ingredients, and mixture in such proportions as would produce the desired color. It is held that this method of producing vinegar was as much an imitation of cider vinegar as the former method of adding a small amount of caramel to distilled vinegar; and that such construction of the food law was constitutional.

The opinion further holds that the fact that the barrel of vinegar in question was labeled a "Compound of White Distilled and Sugar Vinegar," would not make its sale permissible in Illinois.

The court also holds that the meaning given to the term "adulterated" in the body of the act is not unconstitutional as being broader than the title of the Act. This was a test case instituted by the Illinois Food Commission, to determine the legality of the so-called compound vinegar. The case was tried in the Municipal Court of Chicago and resulted in the acquittal of the defendant, which order was reversed by the Supreme Court.

Mr. Charles F. McKinley, Attorney for the Illinois Food Commission, represented the State.

REQUIREMENT THAT BREAD BE WRAPPED LEGAL.

A regulation promulgated by the State Board of Health of New Hampshire, requiring all bread loaves to be wrapped in paper, was recently held by the Supreme Court of that State to be a practical and reasonable regulation, pursuant to authority given by the Sanitary Food Law (Laws of 1911). The Court held that the power conferred upon the Board of Health by such law was not a delegation of legislative power, but that the Board in making such rule was merely exercising a power conferred upon them by the State as administrative officers.—*State v. Normand*.

ICE CREAM STANDARD VALID.

A recent decision of the Superior Court of Pennsylvania (*Commonwealth v. Crowl*), holds that the Act of March 24, 1909, which provides that "no ice cream shall be sold within the state containing less than eight per centum of butter fat, except where fruit or nuts are used for the purpose of flavoring, when it shall not contain less than six per centum of butter fat," is valid and constitutional. A standard fixing a minimum content of butter fat is held to be a valid exercise of the police power. Analysis of the ice cream in question showed less than three per cent of butter fat, which the court held was not sufficient to entitle it to the name of ice cream.

(Federal.) Under the Food and Drugs Act, defining the term "food" to include drink, the court has held that the term applies to and includes wine.—*United States v. Sweet Valley Wine Co.* 208 Fed. 85.

(Federal.) Under the Tea Importation Act, which prohibits the re-importation of tea which has been rejected and provides for its forfeiture to the government, tea re-imported is subject to forfeiture even though the person offering it was entirely innocent and had no knowledge of its previous rejection.—*United States v. Twenty Chests of Tea.* 208 Fed. 89.

(Federal Court.) Under the Interstate Commerce Regulations which made it the indispensable duty of an interstate railroad carrier to file and publish schedules of all rates and any rules and regulations which in any wise "change, affect, or determine any part of the aggregate of such aforesaid rates," and prohibit it from charging or receiving any greater or less rate than specified in such schedule, and from making any other changes except by filing the change in rates at least thirty days before the same become effective, the shipper has a contract right to ship his goods under the rates and schedules on file at the time of shipment and a right to all other privileges afforded by the railroad company.—*American Sugar Refinery Co. v. Delaware L. and W. R. Co.* 207 Fed. 733.

(Alabama.) In an action for injuries to a guest at a restaurant caused by eating tainted food, the question of negligence of the restaurant keeper in furnishing such food is a question of fact to be decided by the jury, notwithstanding the fact that the keeper has showed that he purchased the food from a reliable dealer. A restaurateur must use due care to see that food served to his guest is fit for consumption, and is liable for any negligence proximately resulting in the injury to the guest.—*Pantaze v. West.* 61 So. 42.

(Penn.) Under a statute of the State authorizing local boards of health to prevent the sale or exposure for sale of meat unfit for food, a city ordinance providing that no unwholesome meat shall be brought into the city is void for the reason that the city ordinance lacked the qualification limiting its application to bringing for the purpose of offering for sale.—*Silverman v. Board of Health.* 88 Atl. 622.

(Mass.) Though a manufacturer of tea biscuits or wafers has no right to use the words "Boston Wafers" as a trademark, yet where he has by long and exclusive use of the name acquired such a meaning as to indicate in the trade that the goods to which it is applied are made by a particular manufacturer, the use of the name by another firm in such a way as to deceive purchasers and lead them to believe that they are purchasing the original article is unfair competition and the law will restrain such a use.—*Briggs v. National Wafer Co.*, 102 N. E. 87.

(Mass.) Where a quantity of sardines are sold by a commission merchant to a grocery concern and no mention is made at the time of sale as to what the quality of the sardines shall be, the law implies a warranty on the part of the commission merchant that the goods are fit for use as food. When a man enters an obligation that the article shall be fit for food, he incurs no obligation that the article shall keep for any great length of time, especially if the article is perishable.—*Interstate Grocery Co. v. Bentley & Co.* 101 N. E. 147.

(New York.) The New York Sanitary Code declaring that no person shall receive or have in his possession any receptacle for the transportation of milk which has not been washed after holding milk or cream, does not prevent a milk dealer from retaking uncleaned milk bottles, the word "or" being equivalent to "and," but it casts upon the dealer the duty of immediately cleansing the receptacle. The Sanitary Code must be construed liberally.—*People v. Frudenberg.* 103 N. E. 166.

CANNED GOODS AND TOMATO PULP SEIZED.

A number of seizures have recently been effected under the Food and Drugs Act. The cases have not yet been tried out in court but soon will be, when it will be decided whether the Government's action in making the seizures was justified.

Shipments of tomato pulp from Baltimore have been subjected to seizure during the past month in Galveston, Texas, and in Savannah, Georgia. It is charged that the goods consist in whole or in part of filthy, decomposed or putrid vegetable matter. Two hundred cases were shipped by Miller Bros. & Co., and seized in Galveston, while the Savannah seizure was made of 191 cases, shipped by Roberts Bros.

A shipment of 10 barrels and 381 cases of canned vegetables was seized during the month at Chicago, Ill. These vegetables were shipped by E. H. Fretchling Co., Hamilton, Ohio, and are said to consist of a filthy, decomposed or putrid vegetable substance.

Four cases of a so-called "Syrup of Tamarinds" which is charged to be, in fact, an imitation product, were seized recently at Steubenville, Ohio. They were shipped by W. P. Bernagozzi & Bro., New York City. It is charged that the substituted product is a sugar solution artificially colored.

That a pomace wine, artificially colored to conceal its inferiority, has been substituted in whole or in part for a so-called "Ohio Claret Wine," is the charge made against a shipment from the Engels & Krudwig Wine Co., of Sandusky, Ohio. Sixty barrels of this product were seized December 2, at Kansas City, Mo.

Five cases of Tomato Conserve were seized December 5 at Boston, Massachusetts. They were shipped by Ignatius Gross Co. of New York City. It is charged they are adulterated.

Pennsylvania Correspondence

(From our Staff Correspondent.)

HARRISBURG, Pa., Dec. 27—It is probable that instead of forcing a test of the cold storage regulation act of 1913 on a general proposition of constitutionality, people whose interests have been adversely affected by the statute will endeavor to arrange for amendment of the law in order to relieve onerous conditions brought about by illy-considered provisions and to eliminate situations brought about by the application of an act involving many untried requirements. The history of the cold storage law of 1913 is one of compromises. It was demanded by the governor in his message and a number of members made it their platform. However, when the general assembly met there were half a dozen bills introduced, some of them taken bodily from the statute books of other states and others containing provisions wholly unsuited to Pennsylvania. The act as passed was a compromise and some of the leading cold storage men in the state called attention of the legislative leaders to defects and reiterated them to the governor.

The enforcement of the act has been accepted in the best spirit by people having millions invested, as the dairy and food commissioner himself freely says, and although they have started a general action in equity they are not pressing it. Instead, the cold storage people have evidently determined that the defects of the law will be so apparent by the time the general assembly meets a little more than a year hence that amendment will be easy.

The chief objections to the law appear to be to the time limits, on which there will always be more or less difference between those interested and the regulatory powers and to the lack of clarity in some provisions relative to places of storage. For instance, goods are some times placed in cooling rooms over night and yet the persons having them seldom keep them more than twenty-four hours. Again there is ambiguity about shipment of meats in vessels and cars. The state complains that the law does not give sufficient power to check up on goods once withdrawn from storage and that when produce is outlawed it just stays that way. The owner dare not sell and the state can not destroy it.

Dairy and Food Commissioner Foust, while adopting a policy of enforcing the law as laid down, is listening to all complaints and suggestions about changes in the laws and is keeping a file of suggestions for amendments. Some of them are of undoubted merit and will be given consideration. Meanwhile the commissioner has been calling attention of congressmen to the needs of an inter-state law which will prohibit the shipment of cold storage goods from one state into another except for purposes of immediate sale and require names of consignor and consignee of produce withdrawn to be furnished to the state agents together with a statement of what the consignment contains. He also takes the position that goods once withdrawn should not be permitted to be re-stored under any conditions.

While the bulk of the arrests made for violation of the cold storage act have been of retailers who persistently sell cold storage products without displaying a placard that they are "Wholesome cold storage food," there have been a couple of arrests for attempted sale of outlawed eggs, restorage of products once withdrawn and misrepresentation. None of the cold storage people has been arrested as they have facilitated the operation of the law. It is likely, however, that some arrests, more or less in the nature of a test, will be made of agents of packing houses. It is the contention of state officials that meats sent from cold storage at the packing plants shall not be placed in cooling rooms or local plants where the temperature goes below forty degrees. The meat people contend that such storage is not meant to evade the law but merely to protect the meat until it can be distributed to local butchers.

One of the most remarkable things about the dairy and food division offices this year has been the remarkable increase in licenses for the sale of oleomargarine. Six years ago oleo licenses were few and far between. For 1913 the total of licenses may run over 1900. The income of the division this year alone is greater than the appropriation made to run it for two years. It is stated that the operation of the new oleo law is proceeding with little complaint. Arrests for failure to have license are the most common and

there is not the roar and stir over the enforcement as was the case three years ago.

More arrests have been made by state agents for the sale of foods unfit for consumption this year than ever before, the chief offenders being in the larger cities where goods in stages of decomposition were found on sale. In most cases these offenders were merchants in industrial sections and whose business is mainly among the foreign element. Unfortunately just such cases have an effect on the public.

A series of prosecutions entered against owners of restaurants and safes and lunch rooms in Philadelphia for the sale of coffee that was "loaded" with various substitutes caused commotion in Philadelphia as some of the biggest restaurants were subjected to sampling. The agents swept through about three score establishments and bought samples of the coffee ready to serve.

Dairy and Food Commissioner James Foust has sent to seventy-nine cold storage warehouses blank reports calling upon the managers to make statements to him of all products in cold storage for the quarter ending January 6. This is the second quarterly report to be called for by the commissioner. The first report showed a large number of crates of eggs on which the time limit expired in December and a large amount of butter on which the limit expires in January and February.

Over 700 applications for oleomargarine licenses for 1914 have been filed with the dairy and food commissioner, and it is expected that over 1,000 will be issued during the first week in January. The present licenses expire on New Year's day.

The first commodities law, defining standards of weight for eighty-one varieties of products, fruits, grains and other things in daily use and requiring certain methods of sale and that all vessels used for measuring shall be stamped with capacity, becomes effective on January 1, 1914, in Pennsylvania. The law was passed by the legislature in June and since that time steps to arrange for its enforcement have been underway. Sealers of weights and measures have been named in over forty of the sixty-seven counties and in a score of cities who will look after the law.

PENNSYLVANIA COLD STORAGE RULING.

The following ruling has been made by Commissioner Foust of Pennsylvania:

Since this Department promulgated its rules and regulations, under the Cold Storage Act of 1913, and the interpretation thereof of August 15, 1913, certain conditions and situations which were not at that time foreseen, have arisen. In interpreting Regulation No. 4 this Department held that a license must be issued for the entire building or structure in which a cold storage plant is operated. It appears that there are large establishments, particularly for the killing and dressing of the carcasses of animals to be sold as fresh meat, and not intended to be put into cold storage, in which a cold storage room or rooms are located for general cold storage purposes. It also appears that there are several rooms in the basement of the large passenger station in the city of Philadelphia, known as the Reading Terminal, which cold storage rooms occupy a very small portion of the structure. There are other similar buildings throughout the Commonwealth. It is manifestly unreasonable to require a license as a cold storage plant for the entire passenger railway station, and apparently just as unreasonable to require a license for large butchering establishments where only a small room is used for storage, and thus necessitate all of the fresh meat coming from such establishment being marked as required by Section 15 of the Act.

Therefore, the interpretation of Regulation 4, issued on August 15, 1913, is now modified, and a license will be issued by the Dairy & Food Commissioner in proper cases for the room, or rooms used as a cold storage plant, when properly designated in the application, with the understanding, and upon the condition that the Commissioner reserves the right of sanitary inspection of the whole, or such part of the building or buildings in which such rooms are located, as in his judgment is necessary to properly carry out the provisions of the cold storage act.

Dec. 2, 1913.

Efficiency in Food and Drug Control

ADDRESS OF HON. JAMES H. WALLIS, AND LOUIS RONEEL, DELIVERED BEFORE
THE NATIONAL CIVIC FEDERATION, NEW YORK CITY, DECEMBER 11, 1913.

THE importance of food and drug control looms large at the present time. Zealous officials, working with defective laws, have yet been able to make long strides toward securing pure and properly labeled foods for the stomachs of the people, and for our sick, drugs which have not been debased. These results have been accomplished only by the aid of strong public opinion enlightened by a friendly press, and with the help of sympathetic judges, who have endeavored to overlook technical defects in the laws, and to see only the spirit of such legislation.

In the Congress of the United States, and generally in the legislatures of the various states, there has been such lively appreciation of the necessity for pure food and unadulterated drugs, that the officials charged with the enforcement of food and drug laws have had but little trouble in securing adequate appropriations to carry on their work. This puts the responsibility for proper results squarely upon the food and drug officials. Have we secured the greatest possible result for each dollar expended? This is the subject to which I have given careful consideration and I am forced to the conclusion that the question cannot be answered in the affirmative. I propose to give my reasons for that belief and to suggest a remedy which I think will be effective.

The first difficulty in the way of efficient enforcement of food and drug laws has been a lack of effective co-operation among food and drug control officials. This applies not only, as between state officials and national officials, but also to co-operation among the state officials themselves. This is an evil well recognized by all the officials and steps have now been taken to correct it. It is a matter which rests entirely with the officials, and help must come from within and not from without. This great National Civic Federation cannot help us in this, the lesser of our difficulties. We must do that work ourselves.

We have been deficient also in the quantity and quality of educational work which should be done. True we have sent our bulletins to the consumer, warning him against the frauds and impositions which we have detected in his food supply, and in his drugs; and in these same bulletins we have given him the names of those food and drugs manufacturers and dealers, who have sold him the adulterated and misbranded articles. We have informed him of the dire consequences which the officials of the state have visited upon these manufacturers in the way of fines and other penalties. This has been good work but it has not gone far enough. There is not a food and drug official of experience who does not know that 90% of the violations of food and drug laws, both state and national, have been caused largely by the ignorance or carelessness of the manufacturer, and not with a wilful intent to produce and dispose of adulterated and misbranded articles. Ten per cent perhaps of the prosecutions are against manufacturers who deliberately offer debased, deleterious, adulterated, and misbranded foods and drugs; and as against this latter class of manufacturers the penalties provided in various laws have been woefully deficient. But how about those manufacturers who have sinned because of ignorance? We have done our full governmental duty when we say let the manufacturer beware, let him put out food and drugs at his peril? Does not such a policy lose sight of the end sought to be attained, which is to secure as quickly as may be possible a pure food and drug supply for the people? Will we not attain that result more quickly if we educate our manufacturers, show them how to produce pure foods in a cleanly manner, and spread information regarding methods of adulterating drugs, largely perpetrated by the foreign producer upon the American importer, who buys in good faith? A beginning toward this constructive work has been made by the U. S. Department of Agriculture, and to a small degree has been carried on in some of the states, but in my opinion greater stress should be laid upon it, and the quantity and quality of such work should be improved. Because a man happens to be a manufacturer of foods, or an importer of drugs he is none the less an American citizen, who pays his share of the taxes from which our appropriations are drawn. Human nature runs much the same in manufacturers of foods and drugs as in the rest of our citi-

zens, who are engaged in other lines of endeavor. In other words the great majority is honest. It is not right, it is not even politic to confound the great mass of clean honest manufacturers with the sordid dishonest minority. A distinction should be made. Increase the penalties against the dishonest, and educate the honest. If this be done there will be fewer court cases, because there will be a lesser number of violations of law. There can be no greater error than to suppose that a large number of prosecutions proves a successful administration of the law. Granting equal honesty, diligence, and competency, that administrator who has the smallest number of violations to report to the courts, has made the greatest success, because he has so educated the honest dealers of his state that they conduct their business within the law, and he has so impressed the dishonest few with the certainty of dire results, that they, through fear, obey the law and the regulations made thereunder.

The two minor reasons why the food and drug control work has not been more effective are as stated, lack of effective co-operation between food and drug control officials, and insufficient and defective educational work. I do not wish to be understood to state that great good has not already been accomplished. Thanks to the agencies working for clean foods and pure drugs, we are now within hailing distance of an honest supply of both articles, but I *do* wish to be understood to say that before the best results are permanently secured there must be a radical reorganization and change of methods.

This is an age when every business man, and every statesman, for the latter is only the former doing his country's business, are seeking 100% efficiency. Just so far as he falls short of 100% efficiency, just so far does the wise man miss his ideal.

The food and drug control work in the United States is not 50% efficient. This is startling, but it is true. Where is the trouble? How it is possible with a mass of food and drug legislation, with zealous competent, and honest officials attempting to enforce the laws, with generous appropriations, with public opinion strongly behind the work, and with a friendly press and helpful judges, that there is not greater efficiency?

The answer is found in defective organization and utter lack of correlation of several branches of what really is but one subject. This trouble has its root in the laws of the federal government and in the laws of the states. This is where the National Civic Federation can help us food officials. We must secure basic changes in these national and state laws and this association can help materially.

What is food and drug control?

It has been customary to divide food and drug frauds into two classes: (1) Those which strike the pocket-book because of the substitution of inferior quality, and (2) those which prey upon the human system, either because they are positively deleterious, or because they are deficient in strength or in effect. This is an artificial classification and an unsound one. All food and drug frauds fall within the second class. They prey upon the system, for it will be found, whenever a food or drug is debased by the substitution of cheaper material, cheaper only because it is deficient in food value or lacking in therapeutic effect, that not only has the money of the consumer been stolen, but there has been a direct attack upon the system. Either the body has been deprived of proper nourishment in the food, or it has suffered from the lack of remedial value in the drug.

In plain English, then, the underlying principle upon which food and drug control rests is the protection of the bodily welfare of the citizens. It falls in the same class as the sewage problem of our cities, and the disposal of waste products of animal life in our rural sections. It is brother to the "swat the fly" crusade, and a first cousin to the work of inspecting working conditions in factories, including women and child labor, a terrible menace to the welfare of the generations of citizens yet to come. It is closely related to the inspection and quarantine work against contagious disease, be that disease measles or bubonic plague. It is in the same family as

the work of protecting our water supplies from pollution. In short, it is one branch of HEALTH WORK.

Gentlemen, to be efficient we must have all of these activities I have named and the many others which I have not named, but which will readily occur to you, combined into one organization. It must be done in the nation, and it must be done in each state. As the matter stands now, there is no correlation of these various activities which are all but part and parcel of one great work, fostering and protecting the bodily welfare of our citizens. I do not care whether we have a national department of health, with its head sitting as a cabinet officer. It is not the name and position that count. It is the effective organization which, no matter what it may be called, can group together this widely scattered work, and combine under one head and one direction all of these separate forces really working for a common end.

Consider the deplorable condition which exists now. Each activity has its own administrative and executive force, separate, clerical and inspecting forces, separate laboratories and experts, separate filing and housing. Think what this means in waste of money and energy, and that is by far the lesser waste. The paralyzing thing is the absence of one broad, far reaching plan which takes into account all that can be done by each separate line of endeavor, and welds the whole into one irresistible engine of progress.

First, we must have national legislation, which will recognize the principle, by placing within one organization the various and many health activities of the federal government. This organization when created must be directed to co-operate with the state organizations which will be patterned after it. Every dollar of appropriation for health work must be made to do its work. In cities and towns where government laboratories are located, the municipal and state laboratory work should be done in the government laboratory. The federal government should clothe the state inspectors with all the powers held by federal inspectors, and the state likewise should make the federal inspector the agent of the state. The legislation, federal and state, should be uniform, and if the states are to follow the national law, the latter must be progressive and adequate to remedy evils which must be met.

When these things are done, we shall secure results, and we shall have in these United States men and women of finer physique and longer lives than the world has ever before seen.

ADDRESS BY LOUIS RUNKEL,

President American Specialty Manufacturers' Assn.

It gives me the greatest pleasure to be with you today, representing the American Specialty Manufacturers' Association. I count this meeting as an exceedingly important one, bring-

ing together those whose calling in life may be along different lines but which lines, so far as the subject of the food and drugs laws are concerned, are one and single—converging in the betterment of foods and drugs, and the safeguarding of their sale throughout this great nation. We cannot but be in sympathy and harmony, each with the other, in considering these subjects, and this great and public spirited organization whose guests we are today is performing a distinct service to the American people in bringing together the officials of the National and State Governments, the trade and the representatives of the mighty consuming public, generally, to exchange greetings, to pledge anew our allegiance to the common cause and to endeavor to aid the work in which we are all directly interested. A meeting of this nature is inspiring, and I wish

to emphatically and cordially pledge to you in these deliberations the support of the Association of which I am more than honored in being its President, representing, as I believe it does, many of the highest and noblest manufacturers of food products in this country, men whose whole life and energies are directed in offering to the people of this nation the purest and most sanitary foods, the highest quality foods, honestly and truthfully labeled.

The American Specialty Manufacturers' Association is made up of manufacturers of food specialties, that is, foods sold in packages or container form under a distinctive brand or name. The products manufactured by our members cover almost the whole field of packaged foods and are produced in enormous quantities. And at this point I would like to call to your attention that the advent of branded food has been one of the most potent factors for better foods in this country. A manufacturer who puts out his foods over his own signature, under his own brand, thereby standardizes his products, and their subsequent sale depends entirely upon their merit. Purity, wholesomeness, quality and honest weights or measures, and honest labels, once borne home to the consumer, backed by the reputa-

tion so earned, make the manufacturer's name the most valuable asset in commerce—whose mere mention means the confidence of the consumer—and I refer to that most valuable of our assets, our good will. So I believe I may venture to state that packaged and branded foods has done more for better quality and grade than almost any other single influence.

The American Specialty Manufacturers' Association originated some five years ago. Our constitution pledges us to co-operate in the enactment and enforcement of just and equitable food laws, and I am proud to state to you that we have endeavored to live up to our constitution in every way.

From the beginning of our Association until the present year I was honored in being the Chairman of our Legislative Committee.



LOUIS RUNKEL.

We have always believed that co-operation between the manufacturers and the government officials was absolutely essential to a more efficient administration and enforcement of the laws. As manufacturers we are directly and solely responsible under the law, and if any question subsequently arises as to the legality of our products we must bear the responsibility, no matter through how many distributing hands these products have passed.

We manufacturers want to know the laws in order that we can more completely conform to them—we want to tell you our practical troubles and difficulties and to have you help us. If our methods may be improved, if our conditions of manufacture may be made more sanitary, if our formulas may be bettered, if any improvement is possible, mechanical or otherwise, we would heartily welcome it.

Through this co-operation of the trade and the government officials good cannot but result. We appreciate our responsibility to the public as manufacturers of necessities, food products, and we are endeavoring to live up to that responsibility.

As in any other calling of life you will find dishonest food manufacturers, men who will cheat and defraud, and even, I am sorry to say, injuriously adulterate their products. But I am sure that that class is small and becoming smaller, and that the majority of the food manufacturers of this country are honest, law-abiding and God-fearing manufacturers and citizens.

Our Association is as much against such fraudulent manufacturers and dealers as are the National and State governments, as we realize that a special weakness reflects upon us all to some degree and we offer you our hearty support against such practices.

Again we are aiming in our Association co-operation to make better manufacturers of each member by information and education, legal and trade. If our Association privileges meant merely fraternal enjoyment they would be valuable, but no sufficient reason for such co-operative existence. We feel we have a duty to perform to the public, which duty we can best perform by such mutual assistance.

Honest weights and measures legislation has been a subject in which we have been actively interested. We have always firmly believed that the consumer is entitled to know the quantity he is receiving and thereby assuring full weights and measures. Such a practice is ordinary honesty and claims no more merit than any proper action should claim. When the question arose of a Weights and Measures Law for New York State, we at once took an active interest in encouraging and aiding this proposed law, and we did not cease working until the present law was enacted.

In order to have effective and general uniform weights and measures legislation a national law was enacted. The American Specialty Manufacturers' Association was actively interested in this amendment of the national law and we did all in our power to encourage its passage.

Is not this co-operation for better laws valuable? Is it not worth while?

One of the greatest difficulties food manufacturers have to contend with is the lack of uniformity in the pure food laws. The legislation in this field is very extensive. We do not object to regulation, no matter how severe, either as to manufacture or labeling, if it is at all reasonable and just and equitable in the final interest of the consumer, but we do ask most earnestly that such a regulation when determined should be uniform throughout the land, so that we may most economically distribute our products, which is to the benefit of the consumer.

On behalf of the American Specialty Manufacturers' Association I pledge to all who are represented here today that our Association as a whole and each individual member will offer you any aid in our power to the end that the pure food laws of this nation shall be more effective, more efficiently administered and more fully complied with.

SYSTEMS OF MILK INSPECTION.

Ernest Kelly, in charge of market milk investigations, U. S. Department of Agriculture, spoke on present systems of milk control in the United States, before the Massachusetts Milk Inspectors' Association on December 2, in Springfield, Massachusetts. The following are extracts from Mr. Kelly's address:

What is the most efficient system of milk inspection and how may it be installed and maintained? A novice will find that one city requires pasteurization, while another does not; that one city allows a bacteria count of 500,000, while another has a limit of 100,000; that this city requires four per cent

fat, that one only 30 percent, and so on. In collecting data along this line last year I found the following surprising variations: Standards for bacteria ran all the way from 25,000 up to 1,000,000 per cubic centimeter. 500,000 per c. c. seemed to be the most popular, thirty-three cities out of sixty-six reporting this figure.

Fat standards ranged from 3 per cent to 3¾ per cent, fifty-one cities out of one hundred and twenty-two requiring the smaller amount. Total solids showed an even greater variation, running from 10.62 per cent up to 13 per cent.

No sane minded person would claim that three per cent milk is more valuable as a food in Boston than it is in San Francisco, or that milk containing 400,000 bacteria is harmless in Florida and poisonous in Maine.

To carry on this important work, the average city is poorly equipped. Pitifully small sums are appropriated by city councils and state legislatures to push this campaign of education. Last year I received from one hundred and sixty-two cities letters giving the amounts spent for dairy and milk inspection. These figures include country and city inspections, the taking of samples, laboratory work, supervisory and clerical work, in fact every item connected with milk inspection. Twenty-two cities reported that they spent absolutely nothing for such work. One city spent one-tenth of a cent per capita per year, while the highest reported was a little town in Georgia which spent nineteen cents per capita per year. Only forty-three of the one hundred and sixty-two cities spent five cents or more per capita and the average in cities spending anything at all was only 4.14 cents per capita per year. Each individual spends less than one cent per year, or the cost of a glass of soda, every year, to protect the most important food in the world. Is it surprising that so little interest is manifested by the average consumer?

In many places the position of milk inspector is so poorly paid that it attracts only political ward heelers, hungry for any crumb from the loaf of the commonwealth. I wish to say that emphatically that there must be a radical change in the manner of appointing milk inspectors throughout the country before the highest degree of efficiency can be attained. Political domination must cease in public health work; the hands of the life-saver must be free if he is to battle successfully with the waves. Not all appointed inspectors are unfit, by any means; many of them are efficient and conscientious, but the general system is wrong for two reasons: First, it allows the selection of men without any regard for their fitness, and second, it usually means short terms, so that new men are constantly taking up the work, creating a state of chaos by the introduction of different systems and ideas.

Dairy and milk inspectors should be most carefully selected. They should combine at least four qualifications: knowledge of sanitation, knowledge of dairy practices, common sense and tact. Armed with these weapons, they are fully equipped to conquer the hosts of ignorance and prejudice.

The laws that are enacted should measure up to certain standards: First, they should be uniform. Laws should be simple. Laws should be enforceable. Lastly, laws should be just and necessary.

There are many adherents to the belief that a bacteriological examination of milk is sufficient. I can not agree with such a view for two reasons:

First, a sanitary inspection is absolutely necessary in order that a definite knowledge may be obtained concerning sources of contamination. The character of the contamination can often be more accurately analyzed by a survey of the dairy operations than by a bacteria count alone.

Second, the farmer needs instruction in improving conditions on his farm. The report of a bacteria count will show that something is wrong, but will not point out the defective method responsible for the trouble.

Undeniably, a system of inspection is best that combines a sanitary inspection and a bacteria count, used as checks each on the other.

From a somewhat wide experience I feel very strongly that the score card is the best instrument for carrying on an efficient sanitary inspection.

The sediment test I consider most valuable as a means of demonstrating carelessness in milk production. But farmers may learn to strain their milk carefully so that it shows little sediment and still the milk may be bacteriologically very bad. Or a milk, clean in the beginning, may be so poorly refrigerated that it has a high bacteria count. Sediment is a proof of carelessness, but the absence of sediment does not by any means mean that the milk is clean and fit for use.

Food Dealers Hear Able Address

ASSISTANT COMMISSIONER J. J. HIGGINS TALKS TO MANUFACTURERS AND WHOLESALERS AT SEATTLE, WASHINGTON

SOME of the manufacturers and wholesalers of Seattle, Wash., were worried because of the activities of the department and requested a conference for the purpose of finding out how the national and state laws were interpreted, and to have a final definition of the various rulings on these laws. They were also seeking to secure a modification of the recent ruling on vinegar.

The state commissioner of agriculture as well as one of the state chemists were present at the meeting to listen to the arguments put forth by the wholesalers and manufacturers of vinegar. After listening to their arguments the department officials decided to stand by their ruling. Following is Mr Higgin's address:

IT certainly affords me great pleasure to meet you here in conference in response to your very courteous invitation. Meetings like this which bring together men engaged in similar lines ought to result in benefit not only to yourselves but also to consumers of your products. This, I am sure, will be the result if we are frank without being personal and without entertaining anything but a desire to bring about better food conditions and to live not only within the letter but the spirit of the Pure Food Laws. In this desire for better results I believe I have your hearty support; otherwise I would not be here.

Governor Lister, Commissioner Perkins, and the officials of our Department appreciate the fact that you are vitally interested in our activities in the matter of assuring to the ultimate consumer the full benefit of our Pure Food Laws. All of us appreciate the fact that the legitimate interests of the manufacturer and dealer should be carefully considered so that the law and our rulings can be enforced with as little disturbance to honest business as possible and still safeguard the public's interest in the law.

Do not understand for a moment that we have lost sight of your interests and are seeking heedlessly to jeopardize them. We all realize how important this phase of our work is, for lately suggestions have been made that were prompted by quite as selfish motives as formerly prompted the old time fight against any effort at food purity. Knowing as we all do that our manufacturing and wholesale interests are of vital concern to the state and its general welfare and prosperity, we certainly would be remiss in our duty if we did not give to those interests the due amount of consideration to which their great importance entitles them.

We are also daily brought face to face with the further fact that there are other considerations that cannot be weighed upon the scales of commerce and there are values which cannot be recorded by the dollar mark. Human life and health is the most valuable asset trusted to our keeping and should receive and will receive our first consideration. Whenever the business interest conflicts with the public interest, we cannot hesitate as to which we shall serve. In the larger sense we do not believe that real business interest ever conflicts with the public interest. The real leaders in the world of commerce are coming to recognize the fact, and instead of displaying the old hostility to reasonable regulative laws, are beginning to show both their patriotism and their good business sense by actively co-operating in the enforcement of such laws.

Too frequently the Food Commissioner is regarded as anxious to exercise his police authority and to arrest some one and have him fined. This is a wrong conception of the average Commissioner and entirely wrong as regards myself. Our Department would rather use its educational and persuasive powers to correct the marketing of impure food supplies than exercise its police authority by arrests and the infliction of fines. In brief we believe the benefits from the work of our Department will be judged more by the improvement we may be able to bring about through improved

food conditions and supplies than by the number of convictions and fines we may secure.

Do not understand from this admission that we are disposed to compromise any wilful violation of the law or that we fear to invoke the law when necessary. Convictions under the food laws are much more easily secured than formerly. Judicial as well as public sentiment has been so aroused by the numerous attempts to market questionable food products, that any well founded case is practically sure to result in a conviction.

We only mention these matters so that you will understand we are not disposed to inflict unnecessary hardships on the trade where we find there is a disposition shown to live within the law.

In passing, there is one trade abuse we should like to call to your attention, namely, that of overloading the retailer with perishable food supplies. We consider all food products perishable by deterioration from age and the work of harmful bacteria, worms and weevil. Quantity prices, special prices, free deals and future buying is responsible for a multitude of trouble to all classes of the trade as well as to the public and to our Department.

In the brief history of the past few months our Department has condemned and confiscated 75,000 packages of food, mostly canned fish and meat, dangerous to health and life, and if we could command the help which the work requires the quantity would have been more than trebled.

In view of the high cost of food products, the injury done the public from the consumption of stale and unfit food, the damage done the manufacturer in the eyes of the public from sales of his wares that have become weevily or decayed from age, and the waste of effort and advertising to restore or create a demand for goods that have been seriously injured in the estimation of the public by their unwholesome condition, should arouse your serious consideration to this question of whether it is not about time to face about and adopt some system of marketing goods so they may reach the ultimate consumer in a fresh and inviting condition.

In order that you may not consider that I am drawing upon my imagination about this matter, I wish to fortify my statement by saying that we recently prosecuted and convicted one large firm for selling goods that had been canned for more than twenty years. In another case a wholesaler admitted on the stand that he had sold food products that had been in his stock for over four years, and we are daily condemning and confiscating goods offered for sale that have been packed for from ten to twenty-two years to our certain knowledge. Only a few days ago one of our inspectors condemned and seized in a retail store in the interior of the state a lot of canned meat that was packed long before the passage of the last National Food law which became effective June 30, 1906, and the invoice upon which he bought them from one of our Seattle wholesalers bore the billing date of November 26, 1913. We are daily picking up and condemning canned meats that were passed and inspected by the Bureau of Animal Industry under the Federal Act of 1891, where the fact of the early inspection is sought to be concealed from the public by the use of a paster, claiming they were passed and inspected under the Federal Act of 1906. Some dealers contend there are no more of these old canned meats on the market but this contention will not fit in with the facts as I have just stated them.

To yourselves you are no doubt saying, "Why are not these cases prosecuted?" To this question we reply that in all cases where we are able to secure the invoices and fix the responsibility, the prosecutions will undoubtedly follow. Gross carelessness on the part of many retailers in failing to preserve their invoices makes the task of tracing wilful violations very difficult. Perhaps the prosecution of a few retailers for lack of due diligence may correct this difficulty.

I assure you it is a very unpleasant duty to have to call your attention to these matters, but as I said in the beginning a little heart to heart talk will do us all good.

For some time past this Department, under instructions from the Commissioner, has been conducting educational exhibits for the purpose of educating the general public how to

detect old canned goods in order that they may protect themselves from imposition and injury. The object in conducting this kind of a campaign was to place the public, as near as may be, on an even footing with the dealers and manufacturers in their knowledge of the age and reliability of the various kinds of canned and package goods. As the Agricultural Department is one of service to the public it was thought a work of this kind was proper, and would assist us in remedying to some extent the insufficiency of our present inspection force. We believe it to be effective and it will probably be continued.

In this part of our educational scheme we have advocated that all canned goods should have embossed in the ends of the cans the year in which they were packed, not the day and month but the year. Packers guarantee their products for one year after packing. Any defect of packing that takes place in that year that discloses itself to the dealer in the way of leaks, swells, etc., is made good by the wholesaler and packer if the goods are returned or certified to within the prescribed period. This proposal to date the can we know is not favorably considered by manufacturers or the trade, but unless there is a complete revolution in present market methods it is the only remedy that will protect the public from the sale of over-ripe canned goods.

While the matters we have touched on are no doubt of interest to you, I feel that what will interest you more and what has brought you here is to learn our attitude towards the enforcement of some of the recent regulations we have promulgated, and the standards we have adopted.

As regards standards our Department has been content to follow the Federal Rules with one or two exceptions. This policy has been adopted for several reasons. First and foremost is the fact that the State Law is a practical duplicate of the Federal Law and was drafted and adopted for the purpose of facilitating its enforcement and protecting our dealers and manufacturers from the hampering and irritating difficulties that result from conflicting state and interstate regulations. On page 110 of the Laws and Regulations, our Department says: "So far as conditions will permit the standards of purity for foods and drugs adopted by the U. S. Department of Agriculture will be the standards for this State."

We are frequently asked about labeling. The law itself is so very plain and explicit that there is no reason why it should not be understood. It explicitly demands that labels should be printed in plain English type and shall tell the truth in such an explicit manner that no one will be misled by it.

Manufacturers of flavoring extracts seem to find more difficulty in labeling than manufacturers in other lines. Just why it should be so hard to tell the truth about whether a flavoring compound is a true extract or an imitation is past finding out. There also seems to be a tendency among some manufacturers to use the smallest type possible in printing on their labels, as required by law, the percentages of preservatives or other questionable ingredients. With such efforts to deceive the public our Department has no sympathy, and it might as well be understood that they will not be countenanced. Our rules call for not less than eight point Brevier caps where the size of the label will permit.

Another one of our rules that does not seem to be understood is the labeling of salad oil. From time immemorial salad oil has been understood to be olive oil and when other oils are used in the preparation of salad oil the label shall so state. Our courts have uniformly held that where no qualifying term is used, salad oil must be pure olive oil. This Department has ruled in sympathy with the court's decisions and will prosecute any attempt at violations.

I now come to the last but not least of the matters I expected to call to your attention, and that is our late ruling on vinegar. This question of a vinegar standard has caused all of us a multitude of trouble. In true fatherly style we have walked the floor with it and given heroic doses of all kinds of the soothing syrup that our drug division has confiscated, and still we are unable to quiet it and get a full night's rest. Seriously, our Department inherited this troublesome kid. Our predecessor in office ordered samples of vinegar gathered for analysis, and shortly after the organization of the Department we received the reports on the samples. They disclosed the fact that out of 198 samples gathered and analyzed more than 75% of them were illegal under the former State as well as the Federal ruling. This was certainly a very deplorable showing and called for heroic treatment.

Our chemists were called together with the members of our Department to consider the difficulty and if possible to suggest a remedy. We found on comparing notes that all kinds of adulterating was resorted to in order to turn out any-

thing that bore a semblance to vinegar. Cider vinegar was diluted with water until there was hardly any acidity left, and then acetic acid added to reach the four per cent of acid strength it was supposed to carry. Spirit or distilled vinegar was colored, labeled and sold as cider vinegar. Spirit or distilled vinegar was treated with a dose of boiled cider and sold as cider vinegar, and seemingly every questionable practice that prevailed in the balmy days of adulterated foods was resorted to in the endeavor to market this very questionable product called vinegar.

After thoroughly considering this state of affairs we decided upon the course that was announced in our recent ruling that vinegar should be vinegar and that the dilution of it should be left to the housewife. Contrary to the insinuations of some of our friends in the trade, we understood the Federal ruling on vinegar. We also understood that no special attention was being paid to that ruling either by the Federal authorities or by the manufacturers of vinegar. With these facts staring us in the face, we adopted the only course left open to us, and that was to follow the Pure Food Law as adopted by the Federal and State Legislature. This law says an article of food shall be considered adulterated "if any substance has been mixed and packed with it so as to reduce or lower or injuriously affect its quality or strength," or "if any substance has been substituted wholly or in part for the article," or "if any valuable constituent of the article has been wholly or in part abstracted." In the face of these sections of our Pure Food Law, and the facts disclosed by the investigation already conducted, and the facts as to these statewide violations that must hereafter be disclosed to the people and the legislature, what could our advisory chemical board do except announce an honest and reasonable standard? And what other course could the Department pursue except to require manufacturers and dealers to observe that standard?

Again in the face of these disclosures as to dishonest practices in the manufacture of vinegar, let me ask what opportunity there was for any honest manufacturer or dealer in this product to meet such dishonest competition and survive? The regulations we have announced in this matter are in the interest of honest and fair competition in the business world as well as in the interest of the consuming public, and I believe you will recognize them as such and co-operate with us in their enforcement. I also wish to say that before our Department will consider the modification of any of the rules we will have to be thoroughly convinced we are in error and also that the modification takes into consideration the best interests of the people as a whole.

In closing let me call to your minds that there are many perplexing problems to work out in connection with our Pure Food Laws and while their solution may not always square with your ideas of commercialism and at times may seem at variance with your best interests the enforcing officers must carry them out in harmony with the law.

Indianapolis dairy men have been selling a great deal of "milk powder milk" lately. The board of health has made it plain that the selling of this substitute without an identifying label will get the dealer into trouble.

Dairy and Food Commissioner Helme of Michigan, who is under the law the official sealer of weights and measures, has received the startling information from Washington that the official half-bushel measure used as a standard in the state for nearly half a century does not meet the federal requirements and has been designated as a short measure.

Arrangements have been made for the operation of a dairy special over the lines of the Burlington route in southern Iowa. The train will leave Des Moines, February 2, and will wind up its trip on March 2. The special is to be managed jointly by the State Dairy Association and the State Dairy and Food Commission. W. B. Barney, state commissioner and B. Hiff, assistant, will personally take charge of the special.

Denver is to have a Housewives' League, the first organization of the kind in the state, which is to conduct a systematic campaign to obtain pure food for the households of Denver. The aim is to establish in Denver a branch of the National Housewives' League, the members of which will conduct a movement to see that the pure food laws are strictly carried out in Denver and to boycott those dealers who are found to take improper care of the articles they sell, exposing them to dust and dirt, and who carry inferior brands, or in other ways violate the pure food laws.

DIPLOMATIST AND BUSINESS MAN.

The recent appointment by President Woodrow Wilson of Charles J. Vopicka of Chicago as minister plenipotentiary and envoy extraordinary to the Balkan states, was strenuously opposed by the prohibition element of the country, not because there was anything in the personal or public record of Mr. Vopicka which would render him unfit to perform the duties of that high office, but solely on the ground that Mr. Vopicka was and is a brewer of beer.

Notwithstanding this fanatical and intemperate opposition, President Wilson and Secretary of State Bryan stood by the nomination of Mr. Vopicka and their choice was unanimously confirmed by the Senate of the United States.

At a banquet tendered to Mr. Vopicka by his colleagues at the Hotel Stratford, Chicago, on Saturday, October 11th, Mr. Percy Andreas paid his respects to the prohibitionist in the following speech:

Mr. Andreas said:

Mr. Toastmaster and Gentlemen: I esteem it quite an exceptional privilege to be one of those selected to convey to our distinguished guest this evening some expression of that feeling of regard and friendship which all entertain for him as a valued colleague and comrade, and of that sense of gratification which must inspire every one of us at the thought of the high honor which has been conferred upon him by those who rule the destinies of our great nation. It is the bestowal of that signal honor upon one so closely associated with us as Mr. Vopicka has been which is the especial occasion of this festive gathering tonight, and I am sure that our distinguished guest himself will be the last to misinterpret my meaning when I say that the public significance of his appointment to represent this nation at the seats of great European governments is, even to us, his personal friends and associates, of far greater weight and moment than the private significance attaching to the fact that he who has been selected for that appointment happens to be a friend and associate of ours.

I believe it was Napoleon who called England a nation of shopkeepers, and far from resenting the appellation, England has always been proud of it. America, as we all know, is pre-eminently a commercial nation, and her recognition as such by the great powers of the earth is a fact to which she too has every reason to point with pride. Commerce today rules the world, and dictates the policies and directs the affairs of all nations. It was not always so. Within even my recollection the time was when the governing powers of continental Europe looked with the contempt of ignorance and arrogance upon those who were even then building up the great industries which constitute at this day the very foundation upon which their influence and prestige rest. The fact that a man was engaged in commercial pursuits was in those days an effectual bar to the favor of rulers and governments, and all those who administered the affairs of the peoples of the earth.

All very foolish, of course, to our modern notions. And yet, even then, there was one notable exception, and it is interesting to dwell upon that exception on this particular occasion.

Gentlemen, though the rulers of the nations of the old world regarded industrial pursuits as a whole as beneath their attention, there was one industry which they considered it not derogatory to their dignity to engage in themselves, and that was the brewing industry. I need only point, in proof of what I say, to the rulers of the kingdom of Bavaria, who for centuries have operated one of the most famous breweries of the world, and who to this day conduct in their own name one of the foremost "brewery-owned" saloons on the continent of Europe; or to the Prince of Furstenberg, another fellow-brewer of ours, and incidentally the most intimate friend of the German Kaiser, who, by the way, has been recently heralded by ignorant people in this country as an enemy of beer, whereas the real fact is that a specially fine brew of beer, known as the Emperor's Table Beer, is manufactured and supplied to his majesty's household by this very brewer, Prince Furstenberg; or again to the Baron Speck von Sternburg, the scion of a famous family of German brewers, whom the Kaiser selected as his own ambassador to this country; and indeed many others. In fact, members of the brewing fraternity in Europe occupy honored places in the councils of most European governments. The greatest man, by common consent, as a citizen, administrator, and public benefactor in Denmark is a brewer, and from no other industry have so many men been elevated to the highest dignity in the gift of the British crown as there have been from the brewing industries of the United Kingdom.

I merely cite these examples, gentlemen, and I could cite many more, in order to illustrate the fact that, in selecting a

man from the ranks of our industry to represent this country abroad, our government has not unwisely, and certainly very gracefully and tactfully, chosen one who, in addition to his general fitness to occupy an ambassadorial office, brings with him to that office, just by reason of his association with the brewing industry, those peculiar qualifications of personal environment which accord with the thought, the taste and the social predilections of those very leaders of the world's affairs whom it will be his duty to meet as his country's representative.

It would be almost amusing in this connection, if it were not so pathetic, to reflect upon the circumstance that certain elements among our citizenship, whose colossal ignorance of everything outside the sphere of their own limited experience is only matched by the extraordinary effrontery with which they attempt to impose their dwarfish and intemperate views upon the nation at large, actually entered a noisy protest against the appointment of our guest as this country's representative abroad, on the absurd ground that he is a brewer.

I said the reflection was pathetic, and this is the only reason why I dwell upon it here. I have no quarrel with that deplorable intemperate element of our citizenship to which I referred. It exists, and has existed, in all countries, and in all times, and belongs as distinctly to the abnormal class of nature's creation as, for instance, do those among us who are liable to the physical weakness of intemperance in drink, or to other similar incontinencies which science has long ago discovered to be symptomatic of cerebral disturbance. The men who constitute that element are, in fact, moral inebriates, and should invoke our charity, not our condemnation, just as the physical inebriate is deserving of our sympathy rather than our detestation.

But in our country the spread in recent years of this peculiar condition of mental or moral inebriety has become a danger to the general community and the nation at large, and the cause, I fear, is a specifically human one. I mean that it lies in that wonderful instinct which seems to impel the average human being to exploit commercially whatever comes within the range of his effort and influence. Not only individual men, but whole communities and nations, as history has abundantly shown, are liable under given conditions, which are often deliberately fostered by self-seeking schemers, to become a prey to certain obsessions, and it is the creation and the fostering of such conditions by a few of the more unscrupulous commercialists of our country that has produced that particular obsession to which I am alluding, and which has today seized an alarmingly large number of our fellow-citizens.

Gentlemen, I hold that a man's opinion or belief is his most sacred possession, but when that opinion or belief on any given subject is so unreasoning and fanatic that it interferes with the ordinary functions of his brain and affects his moral conduct and the correct performance of his public and private duties, it is no longer an opinion or belief, but becomes an obsession, and as such stands self-condemned. When judges, owing to their uncompromising opinions on the question of prohibiting the use of stimulants, become incapable of faithfully interpreting the law of their country, whenever that question happens to be involved, and instead of administering that law as it is, deliberately determine it as they would have it to be; when physicians, owing to the same opinions, shamefully distort and twist the truths of science in order to fit them to those opinions; when teachers and preachers brazenly violate the precepts of their religion, and practically disown their Divine Master whose gospel they preach, because His actions ran counter to those opinions, when He not only made alcoholic beverages, but drank them Himself; and when, lastly, large majorities of the people's chosen representatives admittedly violate and defy the sacred constitution upon which the rights and liberties of the people are founded, merely from craven fear of the organized assault upon their political existence threatened by the commercialists who create and exploit this terrible mania of their fellow citizens; it is no longer a harmless obsession that we are confronted with, but a species of madness, dangerous to the people at large, and subversive of the very fundamentals upon which our social fabric is erected.

Gentlemen, you all know that this is no exaggeration. Indeed, there are men in this country, of wide experience and high intelligence, who not only feared, but actually believed, that our great American government itself might, in this very case of our distinguished guest tonight, yield to the artificial pressure exerted upon it by the creators and leaders of this infatuated element of our citizenship, and bow in obedience to their insolent demand that only those who share their fanatical opinions and beliefs should be held deserving of en-

tering the service of this country. In other words, these men believed it possible that the government of the United States might expose the greatest nation on earth to the everlasting ridicule of the whole civilized world by intimating to the rulers of foreign countries that men who are connected with an industry in which many of these rulers themselves deem it proper and creditable to engage are considered in this enlightened land of ours to be by that very fact unworthy of receiving honorable distinction at the hands of their fellow citizens.

It was for this reason that I said that the public significance of the appointment we are celebrating tonight far outweighs the private significance attaching to the circumstance that that appointment happens to be bestowed upon a friend and associate of ours. It enables us, not only as brewers, but as true citizens, and as patriotic lovers of our country, proud and jealous of the position that country occupies as the acknowledged leader of the nations of the world in all that makes for the advancement and the enlightenment of the human race, to congratulate ourselves upon the fact that the illustrious men whom the nation has placed at the helm of its affairs have risen on this occasion, as they always have in the past, and, so God pleases, always will in the future, superior to the small and unworthy considerations which the threats of a fanatic band of unscrupulous and dangerous agitators sought to impose upon them.

Mr. Vopicka, as your friends and well wishers, who love and esteem you, we rejoice in your elevation to one of the most important and honorable posts in the gift of your country. As your fellow citizens, and as men who would rather see their most cherished personal ambitions crushed than suffer the slightest blemish to rest upon the reputation and the dignity of our great and beloved nation, we doubly welcome the action of its government in bestowing such honor upon you, because we recognize in it a renewed guarantee of the fact that that government stands high above the sordid pettiness of selfish and ignorant factions, secure in the knowledge of its own wisdom, and unswerving in its faith in the wisdom and intelligence of the vast majority of those whose affairs it is called upon to administer.

And so God speed you, dear friend, and bring to you happiness and achievement in the lands beyond the sea to which you are going, and to the nation that sends you there that credit and honor which it expects to see reflected upon it through you, its representative and chosen envoy.

TO INCREASE FOREIGN TRADE.

Through the four branches of the bureau of foreign and domestic commerce which are to be established at New York, Chicago, New Orleans and San Francisco, Secretary Redfield of the Department of Commerce hopes to increase American trade abroad. It is proposed to have commercial agents of the department who have been away making studies of foreign trade conditions along special lines, and consuls returning to the states for visits, to spend a part of their time at these bureaus, where American manufacturers and exporters may confer with them about the chances for increasing foreign trade.

"One special feature of the work of these offices which undoubtedly will interest business men and commercial organizations generally," said a statement issued by the department, "is an arrangement made with the cordial aid and co-operation of Wilbur J. Carr, director of the consular service, Department of State, whereby consuls who are in this country on leaves of absence will visit the offices as convenience permits and meet the representatives of business houses who may desire to cultivate business in the particular foreign field in which the consuls reside.

"Due notice will be given in advance of these consular visits through the daily consular and trade reports of the bureau of foreign and domestic commerce through special notices to business houses which may have filed their names with that bureau as interested in that special foreign field and through advices sent to the trade and commercial organizations of the city and the district in which the office is located. Recently in New York the representatives of twenty-two houses interested in a particular field called upon the consul at the local office of the bureau of foreign and domestic commerce.

"In addition to this arrangement it is planned that the commercial agents representing the Department of Commerce abroad shall, upon their return from their foreign studies, visit these offices, their coming also to be announced in the way above described in order that they, in turn, may be able to place personally before the business men of differ-

ent parts of the country the facts that they have obtained in their foreign studies.

"Another feature of the work of the bureau of foreign and domestic commerce which has interest for the business world is that its commercial agents on their return to America will attend trade conferences or conventions of persons or organizations interested in special lines of investigation, in order that they may personally inform manufacturers and merchants of the result of their studies in the foreign field concerning their own lines of manufacture. For example, at the convention of the National Cannery Association, to be held in Baltimore early in February, it is expected that Commercial Agents E. A. Thayer and J. Alexis Shriver will be present, both having recently completed long foreign trips while studying the opportunities for the development of a trade abroad in American canned goods. The purpose is to have these gentlemen meet directly the manufacturers for whose goods they have been seeking a general outlet.

"In the same way it is expected that these commercial agents will visit the cities and localities most interested in the production of the goods whose markets they have been endeavoring to extend, and that they will there also come into personal contact with practical producers."

DRUG PLANT INVESTIGATIONS.

The Department of Agriculture in one phase of its work is investigating the possibility of growing medicinal, condimental, and aromatic plants on a commercial scale in the United States. The field work is largely carried on in testing gardens located in Florida, South Carolina, Virginia, Maryland, and Wisconsin. Many foreign plants which furnish products now in demand in the American drug markets, but not hitherto grown under American agricultural conditions, and many wild plants, the supply of which is diminishing and which have not been cultivated, have been tested in these gardens to determine if they could be successfully cultivated in this country. After the proper methods of planting, cultivating and propagating are worked out, the most promising plants are tested on a field scale to determine their commercial possibilities.

Each year thousands of letters are answered in which information is given respecting the cultivation, preparation for market, and probable yield of plants from which drugs, spices and valuable oils are obtained. The available data on the distribution, collection and marketing of the many medicinal plants growing wild in this country are also drawn upon in response to requests for information.

FEDERAL SUPERVISION OF INSPECTION.

A special meeting of the board of directors of the National Grain Dealers' Association was held in Chicago December 9. It was decided to present a bill in congress asking for federal supervision of grain inspection.

According to the proposed bill a government commission, under jurisdiction of the Department of Agriculture, will be appointed, empowered to examine and license grain inspectors. Members of the appeal committees of boards of trade and all persons who have authority in certifying grain, must also pass an examination before the commission. All certificates of inspection of grain shipped in interstate commerce must bear the signature of a licensed inspector, and such certificate shall be accepted as final.

The proposed law, drafted by the executive committee, must be ratified by members of the association.

It is stated here upon undoubted authority that the appeal papers in the case of the Curtice Brothers Company against the Indiana State Board of Health are being rapidly perfected and will be filed in the United States Supreme Court during its present term. This is a case wherein the regulations of the state as to the use of benzoate of soda are in conflict with the regulations of the Federal Government.

The 22nd annual convention of the National League of Commission Merchants of the United States will be held in Jacksonville, Fla., in the auditorium of the Jacksonville Board of Trade, January 14 to 16 inclusive, for the election of its officers and for consideration and discussion upon all problems affecting transportation and marketing of fruits, vegetables, butter, eggs, poultry, etc.

James E. Mastin, assistant food chemist of Kentucky, has been appointed to the position in charge of the food laboratory under Dr. W. F. Hand, state chemist and food and drug commissioner of Mississippi.

Railroad Depot at Pocatello, Idaho, Condemned

STATE SANITARY INSPECTOR JAMES
H. WALLIS ASKS FOR A NEW DEPOT

DECLARING the Oregon Short Line Railroad Company's depot at Pocatello, Idaho, to be a menace to the health of the people employed there and to the traveling public compelled to remain in and around the building, as well as a veritable fire trap that imperils the lives of those who are confined in its various rooms, State Sanitary Inspector James H. Wallis announces that he has condemned the structure, and that he has called upon the public utilities commission of Idaho to issue an order setting a reasonable time in which the railroad company shall be required to vacate the depot and erect a new one.

Commissioner Wallis' letter to the commission, in which he asks this action to be taken, is as follows:

Honorables J. A. Blomquist, D. W. Standrod, Axel Ramstedt, Public Utilities Commission, Boise, Idaho.

Gentlemen: As a result of three special inspections made

the act creating the public utilities commission, as also in subdivision "b" of section 12, make an order in which said railroad company will have reasonable time to erect a depot at said point, and discontinue the further use of the one now in use. In justification of this complaint, I attach hereto rough drawings of both floors of this building, and call your attention to the fact that there is but one waiting room for all classes and sexes. This room is but 38x48 feet, with a corner taken off for the use of a ticket office, which is 10x24 feet. On the occasion of one of our inspections, I counted at one time 133 persons in this room. In this crowd were Americans, Japs, Chinese, Greeks, Italians, negroes and Indians; mothers with babes in their arms, little children around the floor, and two invalid women, one of whom was suffering with tuberculosis. There were two big heating stoves of the old type making the room overheated, with



COMMISSIONER JAMES H. WALLIS OF IDAHO AND HIS PURE FOOD FIGHTERS.

of the depot building at Pocatello, I desire to state that said building, occupied and operated as it is, is a positive menace to the health of the people employed there, and to the traveling public who are compelled to remain in and around said building, awaiting the departure of trains. We have attempted in the last four years to overcome some of the worst features found there, by requiring the officials of the Oregon Short Line Railway Company to make temporary changes until the building should be abandoned and a new depot take its place. However, conditions are such that we feel we can no longer extend our approval, and we have been compelled to condemn said building. We now ask that your honorable body under the powers granted you by the legislature of the state of Idaho, as set out in section 34 of

practically no ventilation whatever, except as the doors were opened and closed. The stench was almost unbearable, and to add to the unhealthy conditions, there is located on the west end of the room two toilet compartments, one for ladies and one for men. These are but 6x10 feet in size, with accommodations for but two people, and it is needless to say that they are always occupied and generally wet and filthy, owing to the great number of people using them, for it must be remembered that 21 passenger trains pass this station daily, as well as many freight trains, which are not scheduled. In the gathering of people mentioned were several men who were under the influence of liquor, and this, in connection with the foul air and overheated room, made them sick, and they frequently went to the toilet to vomit.

The toilet floors, therefore, were covered with this mass of filth, as well as a constant leakage from the only urinal in the men's department.

It is true that there are signs on the walls, "No Smoking Allowed," but many of the men using the waiting rooms pay little attention to these signs; and yet, under all of these conditions, in one corner of the waiting room, a news company maintains a booth immediately adjoining the ladies' toilet, from which booth is sold candies, fruits and soft drinks, and in the summer time, ice cream. Immediately adjoining the men's toilet, at the rear, is the ice storage room, where the ice is chipped and stored for icing the passenger, Pullman and dining cars. It must be remembered that the depot is practically isolated from the city of Pocatello, and can only be reached by crossing a lengthy viaduct, which extends over an immense amount of trackage around the depot, and which is reached by climbing three flights of stairs. Sometimes people are compelled to remain in these waiting rooms for hours to make train connections, and it is a reflection on our civilization to subject them, especially where they are invalids or mothers with babes, to such dangerously unhealthy and inconvenient conditions. It is a practice upon the arrival of trains at points like Pocatello to lock up the toilets on all cars, which renders it necessary for people to leave the trains and seek accommodations in the waiting rooms, only to find the filthy conditions existing as set out in this complaint.

At the other end of the depot building, as will be seen from the accompanying drawing, is located the eating room, kitchen and commissary of the said Oregon Short Line Railway company. The food is prepared there under as sanitary condition as it is possible to maintain, but still far from what our laws require. At one time we had concluded to close up this house and revoke the license issued under our inspection law, but a compromise was reached, the railroad company making extensive changes and furnishing new equipment to the amount of two or three thousand dollars. However, the improved conditions were merely temporary in their nature, and cannot longer be tolerated.

As dangerous a feature as any to which we have already directed your attention is the fact that besides the menace this building is to public health it is a veritable fire trap, and therefore imperils the lives of those who are employed in the various rooms shown. Up stairs on the second floor are located the general offices of the heads of the several departments connected with the Short Line system, including large forces of clerks and stenographers. These people are in constant jeopardy because of the frame structure which serves as a depot which would burn like tinder if it once caught fire.

In considering this complaint, I desire that you will take into consideration the fact that we will soon have the immense overland passenger traffic going to and from the Panama exposition to be held in San Francisco, a little over a year from now. In order to give proper accommodation to those people, and save our state from humiliation and unfavorable advertising in health protection, it should be required of the railroad company that the building which is to take the place of the one now condemned should be completed at some time during the coming year.

I respectfully ask, therefore, in view of all these conditions, that your honorable body will take such steps as you in your judgment think proper in the premises.

Very respectfully submitted,

JAMES H. WALLIS, State Sanitary Inspector.

WOULD INTEREST SCHOOL CHILDREN.

In order to interest the school children of the state of Idaho in Sanitary work Commissioner James H. Wallis of Idaho has addressed a letter to Miss Grace Shephard, superintendent of public instruction, asking her co-operation in such a plan. The letter is self explanatory and as follows:

Miss Grace M. Shephard, Superintendent of Public Instruction, Boise, Ida.

Dear Miss Shephard: Two winters ago we published a little fly booklet and distributed them throughout the schools of the state, with such excellent results that we have been considering the advisability of making a similar publication this winter. We have hardly determined what particular features to emphasize, but, of course, it will be devoted to health work and better sanitary conditions in our state.

We feel that we would like your co-operation and submit to you the following suggestions: That some time after the holidays, an afternoon be set apart in all the schools to listen to a program made up of interesting numbers dealing with health work and that one of the numbers be an essay, or paper, on a subject something like this, "How can the boys and girls of the higher grades help on 'clean-up' days?" or

"The best plan of organization for keeping our small towns or cities in sanitary condition," or "What should be done on 'clean-up' days, and how can the school children help?" This essay should be given to the best writer in the school and then submitted to a committee appointed by the county superintendent to pass upon the excellency of these papers and the three best to be submitted by this committee to a committee to be appointed by yourself, to select the three best in the state.

We will give three prizes, either in cash or the value in some suitable present, viz.: The first prize to be \$15, the second \$10 and the third \$5 for the three best papers recommended by your committee. All these papers, including the three prize winners, will be published in the booklet we intend to get out and circulate throughout the schools in the state, together with other excellent reading matter along the same line.

We have now laid before you our ideas and will be glad to receive from you any suggestions you may offer in this connection.

I think the program for the afternoon's exercises should be prepared under your direction so that it will be uniform in all the schools. The parents should be invited to attend as they are the ones we are anxious to get at in improving the sanitary conditions of our state. I know the newspapers will be glad to co-operate in this work, and if the teachers will submit their programs to them they will publish the same willingly. Very respectfully yours,

JAMES H. WALLIS, Commissioner.

FOR UNIFORM FOOD STANDARDS.

By R. O. BROOKS.

(Consulting Chemist and Food Inspection Expert, New York City, Formerly State Chemist, New Jersey and Pennsylvania.)

At the recent conference of state and national food officials at Washington, D. C., by far the most important and far-reaching subject debated and acted upon was the question of new, more complete and more clearly legalized food standards. A motion was carried providing for the appointment of three scientific experts from each of the governmental associations concerned in food inspection, including the United States Department of Agriculture, to revise and complete the old Federal food standards (Circular No. 19); and another motion was passed appointing a committee from the conference to take up with the President and Congress such legislation as is necessary to legalize new standards. Pending action by Congress the standards revised and completed, as above, are to be used tentatively and immediately by the state and federal officials.

In drug trade circles we hear little complaint regarding lack of uniformity in official inspection work, as their own book of drug standards, the U. S. Pharmacopoeia, has been generally legalized in Federal and state laws. The principal cause of complaint of lack of uniformity in food inspection work has been the lack of a legalized, country-wide set of standards, so that when a manufacturer or dealer labeled a product for a certain state, or for interstate commerce, it would satisfy every state department. The above developments bid fair to soon end the lack of uniformity in this respect.

The question now arising is whether these standards, so vitally concerning the food trade, are to be (similar to the old Federal standards) purely a one-sided, governmental work, or are they to be formulated and corrected by a commission in which both trade and governmental interests are represented as in the revisions of the Pharmacopoeia. A number of years ago the writer tried to show in various trade journal articles the great desirability of the trade, either through some central trade organization committee or through an association of wholesale grocers (who as the principal distributors are most affected) taking the initiative and getting an universal set of fair standards adopted in all food laws, not incorporating the standards into the law, but merely referring to them, as is the case with the Pharmacopoeia. The opportunity to take the initiative has been missed; now it is a question of co-operating and working for the necessary corrections, etc. That many corrections and revisions are necessary is well-known. In his booklets on the spice standards, vinegars and catsup standards and in various articles on flavoring extract and other standards (as proclaimed in Circular No. 19) the writer has pointed out a number of necessary revisions. When the trade looks into the matter further many important things will be found desirable and it behooves the trade to begin fighting for their self-protection at once.

Work of Federal Bureau of Chemistry

ANNUAL REPORT SUBMITTED BY CARL T. ALSBERG,
CHIEF OF BUREAU OF CHEMISTRY

THE work of the Bureau of Chemistry may be said to be divided into three groups:

(a) *Regulatory.*—The enforcement of the food and drugs act, which is designed to prevent the interstate shipment of foods and drugs which are unwholesome, or adulterated, or offered for sale under misleading labels. The Bureau of Chemistry gives assistance to the Insecticide and Fungicide Board by making analyses, holding hearings, and collecting samples.

(b) *Standardizing.*—The preparation of specifications for purchasing supplies, under contract, by the United States Government, and testing to see that supplies furnished are in accordance with the specifications.

(c) *Investigational.*—This work is of two types; the first serves more purely regulatory purposes and includes such investigations as the search for new forms of sophistication, the development of methods for the detection of adulteration, and the discovery of the cause and source of contamination in foods. The second type consists of constructive work looking to the development of new uses, sources, and methods of preparation of foods and drugs with reference to the conservation of the food supply, the prevention of waste, and the utilization of waste by-products. This type of work includes necessary investigations in analytical, agricultural, and biological chemistry. The two types of investigation merge into each other. An investigation undertaken solely for regulatory purposes often discloses facts which lead to constructive work of great importance and vice versa.

REGULATORY.

Sherley Act.—The work of the Bureau of Chemistry under the food and drugs act during the year was greatly stimulated by two important acts of Congress amending this law. The first, known as the Sherley amendment, enacted August 23, 1912, deals with medicines branded with false and fraudulent statements concerning their effect on disease. To make this act rapidly effective, as many chemists as could be spared were transferred during the winter from food to drug work. These chemists, transferred to the laboratories in Washington, New York, and Chicago, in a few months analyzed hundreds of these preparations. As a result of this work seizure of several of these preparations was recommended and the resulting cases were won by default. Even at this early date a vast improvement in the labeling of medicinal preparations has resulted. Such positive therapeutic claims as "a sure cure," "a reliable remedy," and the like are being replaced on the labels by less misleading expressions, such as "will be found beneficial in" or "will relieve many of the symptoms of." Claims that preparations are cures for such serious diseases as tuberculosis or cancer do not appear on the labels as often as formerly.

Through the Secretary of the Treasury it has been possible to apply the Sherley Act to nearly all importations of drugs, so that false and fraudulent labels should soon disappear from imported medicinal products.

Net-Weight Act.—The second amendment, the net-weight act, enacted March 3, 1913, requires that all packages shipped in interstate commerce shall be plainly and conspicuously marked to show the quantity of the contents. Although this act went into effect immediately, it provides that no penalties shall be imposed for 18 months from the date of the enactment. The equitable enforcement of this act, apparently so simple, is actually very complex. Shrinkage, variations of containers, and errors in weighing, measuring, and counting by hand or by machinery must be studied for a vast variety of products. The gathering of this information devolves upon the Bureau of Chemistry. Many of the investigations show that manufacturers endeavor to furnish full-weight products, but that there are practical difficulties which cause variations in the weight of individual packages. Moreover, for the study of shrinkage, experimental shipments of a large variety of goods to various points in different climates are being made to detect changes in weight and bulk due to variations in temperature and humidity. At the same time the normal water content of foods is being investigated, a most important matter if the law is to be enforced intelligently. Though a vast amount of material is being accumulated in

this way, it will be some years before all the necessary facts have been ascertained for all products.

Inspection.—The number of inspectors has been increased from 41 to 44. They have collected approximately 10,000 samples for examination, in addition to many other samples secured for information, and have visited several thousand manufacturing establishments to note violations.

A general policy of concentration has been inaugurated to insure greater efficiency. The inspectors have been grouped in the larger centers, as far as practicable, and now cover their territory by traveling from these centers. As a result the work is more effectively systematized and the necessary clerical work can be done by clerks, so that the inspectors are free to spend nearly all of their time in the field. Thus the stations at Houston, Tex., and Oklahoma City, Okla., were abandoned and new headquarters for that section created at Dallas, Tex.

Branch Laboratories.—There are now 21 branch laboratories since, in accordance with the policy of concentration, the one at Galveston, Tex., has recently been closed. The Territorial legislature is contributing to the support of the laboratory at Hawaii. The work of these laboratories is mainly to hold hearings for manufacturers in their territory who have been cited under the act, to examine samples assigned to them, and, when called upon, to assist the local district attorney. Often they are directed to gather technical information concerning some industry in their territory. This year they have made extensive investigations, necessitated by the enactment of the net-weight act.

Special mention should be made of certain parts of the regulatory work.

Milk.—During the past winter and spring special attention has been paid to the milk in the small towns, which frequently have insufficient, if any, milk-inspection service. The small towns adjacent to the great cities have become the object of careful inspection, for in such places milk which cannot pass the city inspection is often placed on sale. Formerly it was the policy to take one sample of a shipper's milk and if the bacterial count was very high to recommend prosecution. This sometimes resulted in injustice and frequently caused the producer to cease shipping, as he did not know how to improve the quality of his milk. The present policy is to examine a series of samples, to co-operate with the Dairy Division of the Bureau of Animal Industry in teaching cleanliness to producers of milk, and to prosecute, finally, if the producer fails to follow suggestions. This has resulted in a notable improvement without seriously curtailing milk production.

Shellfish.—The water and bacteriological laboratories co-operated in a study of the character of the water of the Potomac River and of the Maurice River, N. J., to determine to what degree these waters were polluted and the effect of such pollution on the shellfish obtained from these rivers. The investigation of the Potomac River was made with the active assistance and co-operation of the Maryland and Virginia State Boards of Health. This work has been completed. Further, the shellfish have been examined regularly, particularly those from waters believed to have been contaminated from sewage.

Flour and Feed.—A comparison of the chemical composition of natural flour and flour bleached with chlorin has shown that the chlorin bleaching lowers the iodine number of the fat and introduces into the fat, which in natural flour contains hardly a trace of chlorin, a determinable amount of this element. This fact has been utilized in an analytical method for detecting a chlorin-bleached flour.

Investigations into the milling industry showed that it was a general practice to add screenings and mill refuse to mill by-products feeds during their manufacture. Many illegal shipments were seized. The adulteration of feed barley with weed seeds, hulls, screenings, or worthless material for the purpose of raising the weight before shipping consignments to ports on the Atlantic coast for exportation has been stopped.

Olive Oil.—During the last six months of the fiscal year the source and quality of a large number of samples of olive

oil have been investigated. As a result of this examination it is believed that in some instances olive oil is intentionally misbranded by the shippers. The fine distinction between various grades of olive oil dependent on the places of production, which, as in the case of wines, is of much importance to the trade where it is determinable by the senses, has not been taken up by the department.

Malt Beverages, Wines, and Distilled Liquors.—Certain beverages are labeled as made solely from hops and malt when, as a matter of fact, they are made from malt mixed with grains. Seizures were made of these misbranded products. The facts obtained in an extensive investigation of the composition of beverages brewed under known conditions made this regulatory work possible. Certain wine manufacturers in Ohio shipped quantities of fictitious wines branded as if made from a particular variety of grapes grown in another State. Several shipments of this product were seized.

Spurious brandy under misleading labels has for years been imported. Its importation has been stopped.

Vodka, a potable spirit manufactured from potatoes or grain by a Russian Government monopoly, was found to be imitated very closely in containers and labels by various firms in New York City and Brooklyn. The liquor in these packages was found to be ordinary ethyl alcohol diluted. This led to the seizure and confiscation of many such illegal shipments and to the assessment of court fines against the manufacturers.

Canned Foods.—A most comprehensive investigation of the canning industry was conducted by the Bureau of Chemistry during the late summer and fall months of 1912. Effects of inspections made for several years past were apparent in the improved sanitary conditions of the factories, cleanliness of help, character of raw materials used, and their treatment. Since the issuance of Food Inspection Decision 144 most packers are raising the standards of their goods by eliminating various added diluents.

From August to October, 1913, a representative of the Bureau of Chemistry visited Italy and studied the manufacture of Italian tomato sauce and tomato paste, large quantities of which are annually imported into the United States. This study was made primarily to learn conditions of manufacture, particularly in regard to sanitation, as a guide for the examination of products offered for importation. Criteria have been set for foreign manufacturers for the entry of their products into the United States.

Citrus Fruits.—The marketing of unripe fruit, sweated to improve its color in the effort to conceal inferiority, was stopped through court action. Food Inspection Decision 150 was issued to prevent the marketing of fruit rendered worthless by the frost in California.

Physicians' Supplies.—Special attention has been given to products of physicians' supply houses which do not pass through the usual trade channels of wholesale and retail drug houses and therefore escape the notice of inspectors. Many of these products were found to be adulterated or misbranded.

STANDARDIZING.

Because of a tendency during the past year to let contracts for Government supplies without calling for samples of materials for which there were adequate specifications, fewer samples of contract supplies have been tested than in preceding years. On the other hand, more satisfactory work has been done on the examination of very many samples of deliveries of goods of a miscellaneous character. A large number of the samples examined were submitted by other departments and often necessitated investigations. Statistics concerning the variation in paper caused by the effect on sizing of the various methods of drying have been accumulated. Several States have followed the advice of the Bureau of Chemistry in purchasing paper for their archives.

INVESTIGATIONAL.

Citrus Fruit By-Products.—The study of the utilization of waste oranges and lemons is approaching completion. The experimental work on the manufacture of citric acid from lemon juice is practically complete. It has been found that the fruit which has heretofore been discarded will yield from 15 to 60 pounds of citric acid per ton. The citric acid, at the prevailing market price of 35 to 45 cents a pound, renders these culls worth from \$5 to \$25 a ton. Special endeavor to devise methods for the recovery of the essential oil in quantity from both oranges and lemons has resulted in a method by which 60 per cent of the oil present can be recovered. A yield as high as 6¼ pounds of essential oil of orange or lemon has been obtained from a ton of fruit. These citrus oils have a market value of \$2.50 to \$5 a pound. The gross

maximum income a ton from the best quality of culls by methods thus far devised would therefore approximate \$45. The laboratory has been open for inspection to citrus growers and to others interested in this work. Several companies are considering the manufacture of these by-products.

Fruit By-Products.—Studies on the utilization of waste fruits were conducted in collaboration with the Bureau of Plant Industry to further the preservation and concentration of fruit juices. The studies on fruit respiration have been continued in collaboration with the Office of Experiment Stations, the work on bananas being practically completed.

Grapes.—The estimation of the acid content of ripening Concord and Catawba grapes showed that the total tartaric-acid content is fairly constant in the green and ripe fruit, and that the malic-acid content is variable; that malic acid is eliminated during ripening, so that at full ripeness this acid is much less in quantity than the tartaric acid; that the amount of cream of tartar in the juice samples and in the water extract of the same whole fruit shows that this salt increases in the fruit during ripening; that cream of tartar is deposited as crystals in the ripening fruit; that free tartaric acid is always present in considerable quantity in green and in partially ripened fruit, but that in the well-ripened fruit it disappears to such an extent that the crushed and cold-pressed fruit often shows none at all.

The analytical results of technical samples of wines are now sufficiently completed to allow the determination of sophistication of native wines with starch-sugar, and also with cane sugar where this is used in any considerable amount. The chemical studies of normal pure wines and sophisticated wines from American native grapes have shown that under average climatic conditions a sound wine high enough in alcohol and low enough in acid can, with slight exceptions, be more easily produced than is commonly claimed. The slight exceptions are Ives and Concord grapes, which tend to have a low sugar content, while Clinton, Norton, and, occasionally, Catawba grapes tend to have a high acidity. Storage and maturing of these wines in wooden containers assist in bringing them into potable condition through the beneficial effects of fermentation processes which destroy the malic acid, and the natural precipitation of cream of tartar which takes place under these conditions is markedly beneficial to the product.

Grape Juice.—Two field laboratories were established during the season for the manufacture of grape juice, one at Highland, N. Y., and one at Westfield, N. Y. The limits of variation in composition of the juice were studied to learn how to detect added water and to determine the cause of the presence of small amounts of alcohol in grape juice ready for the market. The results of this work show that the alcohol present is due to fermentation during pressing the grapes, and that no fermentation takes place in the juice after it is stored. This is important information, since fermentation decomposes some of the sugar naturally present in the grape and necessitates the addition of sugar to sweeten the finished product.

Wild Cherries.—A study of the products of the wild cherry was made, and information concerning the composition of this fruit, widely used as a flavor, has been obtained.

Crude Drugs.—Analyses have been made of a large number of samples of anise and fennel seeds and cubeb berries to set standards for the composition of the pure articles and to detect the admixture of inferior or exhausted seeds. A method was developed to distinguish the genuine Peru balsam from imitation and from mixtures. The analytical part of the investigation of the adulteration of pyrethrum, or insect powder, has been completed. Results of the investigation of oil of chenopodium show that ascaridole, the medicinally active constituent of wormseed oil on which the vermifuge properties of the oil depend, is a very unstable compound of the peroxid type. Its relations to other compounds have been elucidated, and a number of new and interesting substances prepared from it.

Condiments.—The results of the examination of a large number of samples of pepper showed that the requirements in the standards given in Circular 19, Office of the Secretary, in regard to sand in pod peppers are too low for the commercial product imported at the present time into the United States.

The proper conditions for detecting charlock, a common weed seed, in ground mustard and prepared mustard by chloral hydrate solution have been determined. Information has been collected concerning the occurrence of charlock in grain fields, the separation of the seed from grain, and the utilization of the seed for the production of oil and the practice of

using ground charlock as an adulterant of mustard preparations.

An investigation of the impurities in table, dairy, and other grades of salt manufactured from the Ohio River Valley brines has been completed. Special search was made to detect in these brines the presence of poisonous barium chlorid.

Information furnished by the Bureau of Animal Industry indicated that a great many of the spices used by meat and sausage packing establishments were adulterated or misbranded. This prompted a general investigation of the subject by the inspectors and the collection of a great many samples for technical examination.

Poultry and Eggs.—The food research laboratory has extended to Missouri and contiguous States the demonstration of suitable marketing of poultry and eggs as conducted during two preceding years in Tennessee and Kentucky. A remodeled refrigerator car, in which mechanical refrigeration has been installed, has carried into the small towns a practical demonstration of the benefits to be derived by careful preparation for market combined with refrigeration. Ten carloads of turkeys, chilled in this refrigerating plant, were shipped to the North from Kentucky for the Thanksgiving and Christmas markets. In spite of the warm weather prevailing all arrived in excellent condition. Late in the year a study of breakage of eggs during transportation was begun. As the result of the work of the Bureau of Chemistry three establishments started the sanitary preparation of frozen and dried eggs in the producing section of the Middle West. A study of the methods for detecting the time of storage of eggs has been completed. During the summer of 1912 the deterioration of eggs and egg products was studied. The bacteriological laboratory investigated bacteriological changes in shell eggs preserved in varying solutions of sodium silicate. A method for the determination of reducing sugars in eggs was devised to ascertain the sugar content of yolks and whites. The decomposition of the sugar present in the egg by inoculation with *B. coli* was also studied. The results obtained indicate that the determination of reducing sugars may be applicable in judging the quality of frozen or dried eggs.

Corn Meal.—The Chicago and Savannah laboratories have jointly investigated spoilage in corn meal. Through the co-operation of one of the mills visited shipments of bolted and of roller-process meal from degerminated corn were made under controlled conditions. This meal, stored in commercial warehouses under trade conditions, is being examined at stated intervals to determine the changes taking place. It is proposed to include unbolted, undegerminated, and stone-ground meal in future experiments. An effort has been made to secure the adoption of a uniform method for determining moisture, thus reducing this common source of disagreement to a minimum. At the same time this investigation will furnish valuable data for the enforcement of the net-weight amendment. It will also determine the permissible limit of moisture in corn meal. Moisture is the most important factor in spoilage. Spoilage of corn meal has become a most important hygienic question in the South because of its alleged relation to pellagra.

Gelatin.—The investigation of gelatin has been continued. Results obtained show the presence in gelatin of such metallic impurities as zinc, copper, arsenic, and lead. The cause of these impurities has been shown to be the action of sulphurous acid on the zinc and copper containers during manufacture. This work will enable the manufacturers to avoid introducing these impurities into gelatin.

Sugars and Sirups.—A method for the crystallization of raffinose, one of the sugars from cottonseed meal, was devised, making possible a thorough study of this sugar. The experimental work in sorghum sirups has included manufacture on a small scale in eastern Kentucky, testing various methods of clarification, such as settling, heating, or addition of lime. Special investigations of maple sirup have been made to show the effect of the composition of the evaporators and buckets on the appearance and flavor of the sirups. Pure cane sugar is being prepared for use in determining the polariscopic standards for cane sugar. Cane sugar has been estimated by means of an enzym from yeast.

Insecticides.—An investigation has been made of the toxic effect on fruit trees of certain constituents used in insecticides, notably copper and arsenic. Apprehension has been entertained by some, especially the orchardists of the semi-arid or irrigated districts of the West, that the continued use of the large amount of spray containing these substances might ultimately result in a serious accumulation in the soil and consequent injury of the tree through absorption of poison by the roots.

Canned Foods.—The work of the canning laboratory established in California has been continued. Some of the investigations dealt with the best methods for canning the fruits and vegetables of the Pacific coast, all of which differ in composition from those of the East. Investigations of jelly making have been begun.

As a result of studies of the packing methods of canned white beans and pork and beans, it is now possible to judge when imperfect beans have been used. It was found that because of the competition in the market moldy and decomposed beans were used by some canners for certain grades.

The effect of feeding shellac to laboratory animals was studied, since shellac is now used to line tin cans to prevent corrosion. Shellac is also used in finishing certain kinds of candies.

Collaboration was continued in Washington with the Commissary General of the War Department and with the National Canners' Association to learn the effect of storage on canned foods, the gases normally within the cans, and contamination of the contents of the cans with heavy metals dissolved from the cans.

Coal-Tar Dyes.—Special attention has been paid to amaranth, orange I, ponceau 3 R, and naphthol yellow S. A number of quantitative tests for individual coloring matters in food have been devised.

Analytical Methods.—Investigations of analytical methods of various kinds are always needed in conducting various lines of work. Among those recently studied are: Methods for the examination of asafetida; the detection of small quantities of strychnin in the presence of large quantities of quinin; the determination of moisture, arsenic, and lead; and the determination of tin in canned goods. Some of this work is done in co-operation with the Association of Official Agricultural Chemists. The method on which the leather and paper laboratory has worked in co-operation with the American Leather Chemists' Association for determining glucose in leather has been fully established in this laboratory and made the official method of the association. The contracts laboratory has co-operated in a similar way with the American Society for Testing Materials and with the Bureau of Standards.

Pharmacological Investigations.—Information was obtained concerning the action of caffeine under a variety of conditions. Acute and chronic intoxications with salts of tin were studied and observations upon the action of tartrates were made.

Leather.—Work has been undertaken to determine by experiment the durability of sole leather of different tannages, loaded and unloaded, oiled and unoled, rolled and unrolled, bleached and unbleached. For this investigation and for the purpose of developing a laboratory method to determine durability of leathers, a machine has been designed for the purpose of imitating as closely as practicable the effect of wearing on sole leathers. A method whereby the kind of skin from which a piece of leather was made can be determined from a small piece of leather has been published. Work has been done in collaboration with the American Leather Chemists' Association on the disposal of tannery and leather wastes.

Utilization of Wood Waste.—Investigations on an industrial scale are in progress in wood distillation, and in the separation and refining of products therefrom, to secure information on the best conditions of preparation, and to develop best forms of apparatus for maximum yields of the several products. The work so far indicates that it is practicable to reduce the time required for distillation and to obtain larger yields of better quality of certain products. Successful experiments have been conducted in the separation of resin oils from the heavy oils obtained in the destructive distillation of resinous woods. The work to improve the quality of wood turpentine and to determine their technical value and their toxic effects, when used as paint and varnish thinners as well as when used for drug purposes, has been continued.

In Mitcham, England, where they have been teaching the girls domestic science with a doll, a live baby has been substituted.

Two Wisconsin creamery men were arrested recently by a Federal revenue inspector, charged with having manufactured adulterated butter. They are charged with having mixed wheat flour with the butter to absorb the water and to prevent shrinkage in weight.

Report of Solicitor of Department of Agriculture

BY FRANCIS E. CAFFEY, SOLICITOR, UNITED
STATES DEPARTMENT OF AGRICULTURE

THERE were transmitted to the Federal Department of Justice recommendations in 1,048 cases under the act.

In 652 of these criminal proceedings, and in 396 seizures, under section 10 of the act, were recommended. Before transmission the cases were fully examined as to the facts and the law, and complete statements prepared for the use of the Department of Justice. Of the cases reported during the year, 528 were either pending in the courts or under consideration by the Department of Justice at the end of the year.

Of cases reported to the Department of Justice during the present year or during preceding years, 1,250 were terminated during this fiscal year; of which 848 were criminal and 402 were civil.

Of the 848 criminal cases, fines were imposed in 596; sentence was suspended in 45; in 1 the information was placed on file; in another the defendant was convicted after trial, but sentence had not been imposed at the end of the year; in 4, demurrers to the informations were sustained; in 8 there were acquittals; in 68 there were *nolle prosequis*; 124 were withdrawn or dismissed; and in 1 the grand jury failed to indict. In a majority of the criminal cases pleas of guilty, *nolo contendere*, or *non vult* were entered. In 25 of the cases pleas of not guilty were entered and the defendants were convicted after trial.

Of the 402 civil cases terminated during the year decrees of condemnation and forfeiture were entered in 365; in 2 the libels were dismissed in the district courts; in 2, decrees of the district courts dismissing the libels were affirmed by the circuit court of appeals; in 1 a decree of condemnation and forfeiture was affirmed by the court of appeals; in 8 libels were dismissed with the consent of the Government, and in 24 the packages were broken or disposed of before seizure could be made. In the 366 cases in which final decrees of condemnation and forfeiture were entered, including the 1 in which the decree was affirmed by the court of appeals, the goods were destroyed in 153; released on bond, conditioned that they would not be sold contrary to the provisions of the act, in 157; sold, in 56.

The cases reported during the year to the Department of Justice for action were based on shipments containing vinegar, dried fruits, canned vegetables, extracts, sirups, eggs, temperance beers, flour, wines, beers, and other alcoholic liquors, cocoa, fish, mineral waters, coffee, cocoanut, malt tonic, gelatin, stock feeds, cheese, oranges, catsups, salt, chestnuts, oysters, nuts, maraschino cherries, mushrooms, mince-meat, butter, patent medicines, candies, olive oil, and turpentine.

In addition to the cases reported by this department for action by the Department of Justice under the food and drugs act the food and drug officials of the various States and of the District of Columbia collaborating with the department in the enforcement of the act, reported 41 cases to the different United States attorneys for action. Of these 40 were criminal cases and 1 was a seizure. In all of the criminal cases there were convictions, there being a contest in only 1 case. In the seizure case a decree of condemnation and forfeiture was entered, and the product was ordered sold.

On June 16, 1913, rule 39 of the rules and regulations made for the enforcement of the food and drugs act was repealed. Under that rule domestic meat and meat-food products which were prepared under Federal inspection were exempted from the provisions of the food and drugs act. As a result of the repeal, the power of seizure of unsound meat and meat-food products in the course of interstate commerce can be and has been exercised. Under the meat-inspection amendment spoiled meats could be condemned and destroyed only when they were found within establishments in which Federal inspection was maintained.

The food and drugs act was twice amended during the year.

By the so-called Sherley amendment, approved August 23, 1912 (37 Stat., 416), enacted to meet the decision of the Supreme Court in *U. S. v. Johnson* (221 U. S., 488), false and fraudulent statements as to the curative or therapeutic effects of medicines were brought within the prohibition of the law.

Several cases under the amendment were reported to the Department of Justice during the year.

By the so-called Gould amendment, approved March 3, 1913 (37 Stat., 732), articles of food in package form must bear a statement showing the quantity of the contents in terms of weight, measure, or numerical count. Reasonable variations from the quantities stated on the packages may be permitted by rules and regulations made by the Secretaries of the Treasury, Agriculture, and Commerce. Tolerances and exemptions as to small packages are to be established by rules and regulations prescribed by the same officials. Advice has been given by this office to the committee having in charge the framing of such rules and regulations.

CASES OF INTEREST.

United States v. 443 Cans of Frozen Egg Product, H. J. Keith Co., Claimant. (226 U. S. 172; N. J. No. 2437; Circular 68, Office of the Solicitor.)

This case came before the Supreme Court on a writ of error to and appeal from a judgment of the Circuit Court of Appeals for the Third Circuit. The case originated by the seizure for condemnation, under section 10 of the act, of a quantity of frozen-egg product alleged to be decomposed. The District Court for the District of New Jersey found in favor of the claimant and dismissed the libel. (Notice of Judgment No. 1027.) The United States appealed. The court of appeals reversed the judgment of the district court and directed a decree of condemnation and forfeiture. (193 Fed., 589; Notice of Judgment No. 1576.) The claimant carried the case to the Supreme Court, which reversed the judgment of the circuit court of appeals and remanded the case to that court, with instructions to dismiss the appeal for want of jurisdiction. This decision is important in that it settles the controverted question as to whether cases *in rem* arising under section 10 of the food and drugs act should be reviewed on appeal or by writ of error. The Supreme Court held that such proceedings, after the filing of the libel and seizure of the goods, are common-law actions and subject to review only upon writ of error, in accordance with the rules of the common law.

Lexington Mill & Elevator Co. v. United States. (202 Fed., 615; N. J. No. 2549; Circular 71, Office of the Solicitor.)

This case involves the long-controverted questions as to whether flour bleached with nitrogen peroxide gas is adulterated and misbranded within the meaning of the food and drugs act. The Circuit Court of Appeals for the Eighth Circuit reversed a judgment in favor of the Government in the District Court for the Western District of Missouri. (Notice of Judgment No. 722.)

The case originated by the seizure of 625 sacks of flour bleached by the Alsopp process. The flour was alleged to be adulterated because, as a result of such bleaching, there had been added to it certain poisonous and deleterious ingredients, known as nitrites and nitrite reacting material, which might render it injurious to health; and because nitrites and nitrite reacting material had been mixed and packed with it so as to reduce, lower, and injuriously affect its quality and strength, and had been mixed and packed with it in a manner whereby inferiority was concealed.

The flour was alleged to be misbranded because labeled "Fancy Patent. This flour is made from the first quality hard wheat," which statement was alleged to be misleading because the flour was not patent flour and was not made of first quality hard wheat.

The court of appeals, in construing paragraph 5 section 7 of the act, in the case of food, held that in order to prove an article adulterated by reason of its containing an added poisonous or added deleterious ingredient, it is incumbent upon the Government to show that such ingredient is present in the article in sufficient quantity actually to render it injurious or deleterious to health.

The court of appeals further held that, in the absence of a fixed or universal standard for patent flour, the charge that this flour was not patent flour was not substantiated by the proof.

The Supreme Court has allowed the Government's petition.

for a writ of certiorari, on which the case is now pending before that court.

William M. Galt & Co. v. United States. (41 Washington Law Reporter, 66; N. J. No. 2396; Circular 70, Office of the Solicitor.)

This case came before the Court of Appeals of the District of Columbia on appeal from a decree of the Supreme Court of the District of Columbia, condemning and forfeiting 447 sacks of "Princess Flour" and 72 sacks of "Fancy Melba Patent Flour" on the charge of adulteration, in that the flour consisted in whole or in part of a filthy, decomposed, and putrid animal and vegetable substance.

The claimants contended that there was no evidence in the lower court as to the condition of all the flour condemned by the decree, because out of the two lots of flour only four sacks were examined and found to be adulterated. They argued that such amount was insufficient to show the condition of all the flour seized and condemned. The court of appeals held that the question of whether a sample is fairly representative of the whole is a preliminary question to be decided by the trial court, and that the decision reached by the trial court should not be revised in an appellate court unless the facts producing the decision are before the appellate court, and then only when error clearly appears.

Another question raised was whether flour found to contain worms, insects, and beetles can be said to "consist of a filthy, decomposed, or putrid animal or vegetable substance." The claimants contended that the act makes a distinction between adulteration which consists in adding to an article that which is not properly a part of it and adulteration existing when some part of the article itself is not what it ought to be. It was contended by them that the language of the act means "when some part of the article, whether animal or vegetable, is filthy, decomposed, or putrid—not that the article contains a substance of that character foreign to its proper ingredients or constituents." The court of appeals held that it is a matter of common knowledge that the presence of the large number of worms, insects, and beetles shown by the evidence to be present in the flour would render the flour filthy in the general acceptance of that term, and that, "even conceding that the worms, insects, and beetles could be separated therefrom, the flour would still be contaminated by reason of its contact with them, and it would still contain more or less husks and excreta from the worms—that is, it would still be filthy within the meaning of the act."

Dr. J. L. Stephens Co. v. United States. (N. J. No. 2511, Circular 72, Office of the Solicitor.)

In this case the Circuit Court of Appeals for the Sixth Circuit affirmed the judgment of the District Court for the Southern District of Ohio (Notice of Judgment No. 1891), directing a verdict of guilty against the Dr. J. L. Stephens Co. for violation of the food and drugs act. The defendant brought error.

The offense charged was the shipment in interstate commerce of a drug which contained morphine and alcohol without the quantity or proportion of the morphine and alcohol being stated on the labels of the bottles.

The defendant contended that the drug shipped was a physician's prescription and exempt from the operations of the food and drugs act. It was also claimed that the information was defective and insufficient because it is alleged that each of the bottles shipped by the defendant was misbranded, whereas it should have alleged that the larger package, or "original unbroken package," in which the bottles were contained, was misbranded.

The district court held that the word "package," as used in sections 7 and 8 of the act, is distinct from the term "original unbroken package" used elsewhere in the act; that it is to be taken in its broad sense, and means a package made up by the manufacturer for sale to the ultimate consumer; and that the bottles contained in the original packages were themselves "packages" within the meaning of the act, and were misbranded. The district court also held that physicians' prescriptions are not exempt from the operations of the act.

The defendant also argued that the medicine shipped was not the subject of bargain and sale, but was a mere incident of the services rendered by a physician, and should not be treated as an article of commerce and subject to the requirements of the food and drugs act. The district court held that the sale of a physician's services included a sale of the drug, and that, as the object of the act was to keep adulterated and misbranded foods and drugs out of the channels of interstate commerce, it was immaterial whether the medicine or prescription was the mere incident of the employment of a physician or its primary object.

The circuit court of appeals affirmed the judgment of the lower court on all the foregoing questions, except as relates to the exemption of physicians' prescriptions from the operations of the act. The court declined to pass upon that question because it was not presented in the case, in view of the fact that the medicine was not prescribed by a physician in his individual capacity in the treatment of a patient, but was prescribed by a physician who was acting for a corporation which shipped the medicine to the patient.

Schraubstadter et. al. v. United States. (199 Fed., 568.)

The plaintiff in error was convicted in the District Court for the Northern District of California (N. J., 1020) of violating the food and drugs act by shipping misbranded champagne in interstate commerce. The judgment of the lower court was affirmed by the Circuit Court of Appeals for the Ninth Circuit. The decision of the lower court holds that the term "champagne," when used alone and apart from any qualifying or descriptive words, is commonly understood to describe an effervescent or sparkling wine produced in a province of France, the gas therein being the result of natural fermentation. In this case the wine held to be misbranded was California white wine, artificially carbonated, and labeled "Extra Dry Champagne" and "Crown Brand Champagne," with certain words in French, and bore no statement on the label showing the wine to be of domestic origin. The label was held to be misleading. It was held also, on the authority of *United States v. Morgan* (222 U. S., 274), that where cases arising under section 2 of the food and drugs act originate in the United States Department of Agriculture the libel is not fatally defective for failure to allege that the provisions of section 4 relative to investigation, notice to the defendant, and opportunity to be heard have been complied with.

Philadelphia Pickling Co. v. United States. (202 Fed., 150; N. J. No. 2456.)

The offense charged was shipment from the State of New Jersey into the State of Pennsylvania of a quantity of adulterated tomato paste. The evidence showed that defendant shipped the product from its place of business in New Jersey to itself at its place of business in Pennsylvania. The purpose of the shipment was to have the paste tested, with a view to exporting it to England if it conformed to the English standard. The product failed to meet the test and was destroyed without having been used or sold.

The defendant contended that such a shipment did not constitute an offense within the purview of the food and drugs act, as the article was shipped to itself solely for the purpose of being tested. The District Court for the District of New Jersey held that the shipment was a shipment in interstate commerce of an adulterated article and constituted a violation of the food and drugs act. This view was upheld by the circuit court of appeals.

Hall-Baker Grain Co. v. United States. (198 Fed., 614; N. J. No. 2702.)

The defendant was convicted in the district court of misbranding a carload of mixed wheat by selling it as "No. 2 Red Wheat," and of adulterating No. 2 red wheat by mixing and packing with it an inferior wheat and by substituting mixed wheat wholly or in part for No. 2 red wheat.

It was shown that the defendant received an order for No. 2 red wheat according to Missouri State inspection, and directed an elevator company to ship No. 2 red wheat. The wheat shipped was inspected by an inspector of the State of Missouri and graded as No. 2 red wheat. It was then invoiced by defendant to the consignee in Texas as No. 2 red wheat. After the receipt of the wheat in Texas it was examined and found to be mixed wheat of a grade inferior to No. 2 red wheat. The Circuit Court of Appeals for the Eighth Circuit held that the District Court for the Western District of Missouri erred in instructing the jury that it was no defense to the shipper that the State inspector graded the wheat as No. 2 red wheat; that it was also error to instruct the jury that it was no defense that the wheat had been shipped by the defendant in person; also that the district court erred in instructing the jury that the certificate of inspection and the invoice of the article constituted the label thereof for the purpose of the food and drugs act.

United States v. Charles G. Dade. (N. J. No. 2516.)

The defendant was charged with selling adulterated milk in the District of Columbia. He contended that the presence of bacteria in milk does not prove that the milk "consists" in whole or in part of a filthy, decomposed, or putrid animal or vegetable substance, for the reason that bacteria "contained" in milk are not, in themselves, filthy, decomposed, or putrid substances.

The Court of Appeals for the District of Columbia held

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THE REFEREE BOARD APPOINTED BY THE U. S. GOVERNMENT HAS FOUND THAT

"Saccharin in small quantities ($\frac{3}{10}$ of a gram per day or less) added to food is without deleterious or poisonous action and is not injurious to the health of normal adults." $\frac{3}{10}$ of a gram daily is more than would be used to sweeten **all** the food which a normal adult usually takes per day, if everything he eats and drinks is sweetened.

Saccharin does not abstract from the food value of other food, it only adds a flavor to it. Sugar replaces a certain quantity of other food, and if what it replaces is of higher food value than sugar, as most things we eat are, the sugar abstracts from the food value. This is a fact—as paradoxical as it may seem.

Many people with delicate stomachs or suffering from diabetes, are not allowed to take sugar, because it endangers their health—should they be prevented from buying any prepared food sweetened with Saccharin, the only available sweetener they can partake of with impunity?

The American Medical Association says in its book entitled "Useful Remedies": page 26: "Properties and Uses: 'Saccharin, usually mixed with an equal weight of sodium bicarbonate, is used as a substitute for sugar in sweetening articles of food intended for diabetic patients.'"

According to F. I. D., 146, Saccharin must not be used in any food even if the consumer is told by his doctor that he must eat Saccharin-sweetened food. Why? A declaration on the labels of foods stating plainly when Saccharin has been used would eliminate any possible deception of the consumer.

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that the case was not prosecuted on the assumption that bacteria in themselves were filthy, decomposed, or putrid, but on the assumption that the bacteria caused decomposition in the milk, and the presence of such bacteria as *B. coli* and *streptococci* indicated that the milk also contained fecal matter which rendered it filthy, and that, therefore, milk containing an excessive number of such bacteria is adulterated within the meaning of the act.

The defendant further contended that milk could not be produced which, in its raw state, did not contain bacteria, and that a limited number of bacteria in milk is practically harmless; also that certain kinds of bacteria are harmless. The court of appeals found it unnecessary to decide whether under such circumstances milk containing only a small number of bacteria could be considered adulterated, or to draw the dividing line between pure milk and impure milk, holding that each case must be decided on its merits, and that in this case adulteration was clearly established.

United States v. J. L. Hopkins & Co. (199 Fed., 649; N. J. No. 2436.)

In the District Court for the Eastern District of New York, the defendant filed a plea in bar to an indictment under the food and drugs act on the ground that it was a corporation not resident in the district in which the prosecution was brought, and on the further ground that the prosecution was barred by the laches of the Government in failing to institute proceedings "without delay," as required by section 5 of the act.

The court held that the gist of the offense under section 2 of the act is the shipment or delivery for shipment in interstate commerce of adulterated or misbranded foods or drugs, and hence that jurisdiction exists in the Federal court of the district from which the goods were shipped, even though the defendant did not reside in that district.

The court also held that violations of the food and drugs act are subject to the general statute of limitations, which is three years; that the general statute of limitations is not repealed by section 5 of the food and drugs act, which contains no specific limitation on prosecutions; and that immediate prosecution is not required by section 5 on the theory that in case of delay the right to prosecute would be barred by laches.

United States v. D. Ghirardelli Co. (N. J. No. 2238.)

In this case, confectionery labeled "Ghirardelli's Italian Chocolates, D. Ghirardelli Co., San Francisco, California," contained in a box bearing the colors and design of the Italian flag, was alleged to be misbranded because it was labeled and branded so as to mislead and deceive purchasers into the belief that it was a product manufactured in Italy when not so.

The case was tried in the District Court for the Northern District of California. The court instructed the jury that in order to convict the defendant the jury must be satisfied beyond reasonable doubt that the purchaser of such an article reading the label would at once conclude that the chocolates were manufactured in Italy, and, further, that if there was any other construction to be placed upon the label the verdict must be for the defendant. The jury returned a verdict of not guilty.

United States v. F. B. Washburn & Co. (F. & D. case 2247; unreported.)

The defendant was convicted in the District Court for the District of Massachusetts of violating the food and drugs act by shipping in interstate commerce a quantity of a food product labeled "Macaroons."

The so-called "macaroons" contained about 20 per cent of glucose, and were alleged in the information to be adulterated because glucose had been mixed and packed with them so as to reduce, lower, and injuriously affect their quality and strength. They were alleged to be misbranded because the statement "Macaroons" borne on their label was false and misleading for the reason that they were not macaroons.

This case is of interest mainly because the jury found, in effect, that glucose is not a normal constituent of macaroons, and that the use of glucose in the manufacture of a product purporting to be macaroons, and labeling the resultant product "Macaroons" without declaring the presence of glucose on the label, constitute adulteration and misbranding. A bill of exceptions has been filed by the defendant.

This case is at variance with the case of United States v. Heide (N. J. 1335), which was tried by jury in the Circuit Court for the Southern District of New York November 3, 1911. In the Heide case the defendant was charged with violating the food and drugs act by the shipment in interstate commerce of an article labeled "Eagle Brand Almond Paste for Macaroons. Flavored with Apricot Kernels . . ."

which was alleged to be adulterated in that glucose had been mixed and packed with said article so as to reduce, lower, and injuriously affect its quality and strength, and had been substituted in part for the article. The jury returned a verdict of not guilty.

MILLING AND BAKING TECHNOLOGY.

The American Society of Milling and Baking Technology met at the Raleigh Hotel in Washington, November 19, 1913. President Fitz called the meeting to order, the following members being present:

J. W. Ames, Agricultural Experiment Station, Wooster, Ohio.

T. J. Bryan, Calumet Baking Powder Co., Chicago, Ill.

R. Harcourt, Agricultural Experiment Station, Guelph, Ontario.

B. R. Jacobs, Bureau of Chemistry, Washington, D. C.

J. A. LeClerc, Bureau of Chemistry, Washington, D. C.

M. G. Mastin, Bureau of Chemistry, Washington, D. C.

Hannah L. Wessling, Bureau of Chemistry, Washington, D. C.

C. E. Saunders, Agricultural Experiment Station, Ottawa, Ont.

F. T. Shutt, Agricultural Experiment Station, Ottawa, Ont.

R. W. Thatcher, Agricultural Experiment Station, St. Anthony Park, Minn.

The election of officers for the coming year resulted as follows: President R. Harcourt, Vice President, R. W. Thatcher, Secretary-Treasurer J. A. LeClerc.

It was moved and carried that the Executive Committee (composed of the officers) at once formulate a program of work for the coming year.

The Society passed a resolution inviting all interested in milling and baking to become members. This applies to all millers, bakers and chemists who are working with wheat and flour. The membership fee is \$1.00 per year, no initiation fee being required. Those desiring to become members should send their dollar at once to the Treasurer.

In the discussion the fact was brought out that it is desirable to work with leavening agents other than yeasts (as well as with yeasts) and to co-operate with the Millers' and Bakers' Flour Standards Committee.

It was decided to hold the next meeting in November, 1914, in Washington, in connection with the A. O. A. C., the meeting taking place on the last day of the meeting of the official chemists. Just as soon as the Executive Committee has formulated plans of work for the coming year notice will be given herein.

J. A. LeCLERC, Secretary.

Members of the Housewives' League will help the state health department to enforce the new cold storage regulations by acting as volunteer inspectors. The department, through its attorney, Joseph A. Warren, accepted their services because, it was said, the law failed to provide enough inspectors for its enforcement. The volunteers will serve without pay.

Two hundred and fifty dollars' worth of nuts were dumped into the discard by orders of D. J. Farrell, inspector from the state dairy and food department of Michigan, and Dr. W. F. Clark, of the board of health. The nuts in question were found in several local commission houses and retail stores. They were very old, worthless stock, which had been colored by use of oxide of iron and made to look like new crop.

The following conventions will be held in Chicago, Ill., during the month of January: Walter Lowney & Company's agents, January 1; Indiana Confectioner Club, January 9; both at the Hotel La Salle. Bakers' and confectioners' exhibition, January 1-9, at the Coliseum. Grocery and Allied Trade Press, January 9-10, at the Hotel Sherman. National Refrigerator Manufacturers' Association, January 14-15, at the Hotel Sherman.

Alfred Erickson, ousted as chief food inspector for the state of Illinois on the ground that he was not regularly qualified under the civil service rules, filed a mandamus suit in the Circuit Court in which he asks that W. Scott Matthews, head of the state food commission and the state civil service board, be compelled to certify his name on the rolls to State Auditor Brady and State Treasurer Ryan. R. T. Johnson, Charles Wandrack and William H. Durant, deputy inspectors, and Ben H. Harrison, chemist, were ousted with Erickson by the new administration.



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Indiana Correspondence

(By a Staff Correspondent.)

INDIANAPOLIS, December 27.—The city of Indianapolis was thrown into an uproar late this month by the discovery here by the city board of health that "cow's milk" was being manufactured here in large quantities and delivered to consumers, many of whom fed small babies thereon. This milk was manufactured by the use of a powder and the labeling on the milk was distinctly in violation of the state board of health and city laws and ordinances.

Dr. Herman G. Morgan, city sanitarian, took up the matter as soon as it was discovered and notified milk companies using the product to immediately discontinue its use on pain of prosecution to the full extent of the statutes.

The city board of health began to wonder why the city's milk supply did not diminish to any great degree when the street car and other employes here went out on strike, making it almost impossible to ship food products of any sort to Indianapolis. Investigation was started. The health board had made arrangements for a complete organization to have milk hauled to this city during the labor troubles. Then they found that the milk supply was undiminished.

Samples of milk from various milk concerns were analyzed in the laboratories of the city board, but nothing was found wrong with the milk. The board almost had given up hope when it made the amazing discovery that a sample of milk inspected showed the cream going to the bottom and sides of the vessel. A company finally admitted it had been manufacturing milk. The process consisted of taking about nine pounds of a yellowish powder, mixing with 100 pounds of water. This mixture was boiled, or Pasteurized, and enough milk fats or cream added to give the proper proportion of butter fat, the powder furnishing the required amount of solids. The discovery was made when one enthusiastic company overloaded its "milk" with too much butter fat.

Coincidentally with this discovery state authorities issued a warning to Indiana cities concerning their milk supplies and the inadequate supervision that now prevails in many in Indiana.

In his annual report, H. E. Barnard, state food and drug commissioner, paid particular attention to the milk supply of Indiana. He vigorously denounced the dairyman that runs an unclean dairy or that undertakes to sell milk that is not good, and he points out the efforts of his department to improve conditions throughout the state. He also takes to task the cities that have failed to pass pure milk ordinances. On this subject he says:

"But seventeen cities have pure milk ordinances. A number of these ordinances are the uniform law suggested several years ago by the state board of health. The drafting of others evidently was left to local officials who were not familiar with the successes and failures of other cities in regulating the quality of milk and who therefore drafted unreasonable or weak ordinances.

"Fort Wayne is the only city in the state in which the tuberculin test is made a prerequisite to the licensing of a dairy and the sale of milk. In nine other cities it is made occasionally, that is, on complaint or in suspicious cases. The value of the tuberculin test is shown by the results in the city of Fort Wayne.

"But eleven cities reporting have milk inspectors, men paid to supervise the sanitary conditions of dairies and the sale of milk. In three other cities the health officer gives part of his time to the inspection of milk. Pasteurizing plants are in use in a number of the larger cities. Where such plants are properly operated it is now generally held that they furnish the most satisfactory means for preventing the sale of impure milk.

"The temperature at which milk is delivered varies greatly. In sixteen cities, chiefly the larger towns of the state, milk is required to be delivered at a temperature between fifty and sixty degrees. The smaller cities do not attempt to regulate the temperature, and in fact little attention is given to this important requirement in any city of the state.

"But three cities require by ordinance the washing of milk bottles before they are returned to the dealer. In twenty other towns the dealer requires that bottles be washed before being returned. The other cities of the state made no attempt to regulate the return of unclean bottles.

"Fifteen cities maintain small laboratories for the testing of milk and cream. Twenty-seven cities enforce their ordinances or the state law by prosecuting offenders. A few

others prosecute only on second offense. Several cities report but indifferent success in the handling of milk cases.

"To the inquiry 'Is infant mortality in any way influenced by the quality of the milk supply,' the health officers of the smaller cities in most cases answered no. The health officers of Fort Wayne, South Bend, Gary and other larger towns answered yes.

"The summary of the data at hand concerning the milk supply of the cities and towns of Indiana is not reassuring. The indifference displayed by city officials in neglecting to provide suitable ordinances and pay for the necessary inspection is to be regarded the more since it has been demonstrated possible in a few towns in the state to improve the milk supply, eradicate bovine tuberculosis and reduce infant mortality by suitable requirements. In many cities the unsatisfactory condition of the milk supply is directly attributable to the opposition of dairymen to any effort directed toward the improvement of their herd or dairy. This opposition, prompted in every instance by selfish motives is nevertheless sometimes successful, because of the fear on the part of consumers that a better dairy control means higher priced milk. Without doubt there is still a feeling on the part of the producer that the public will not pay a better price for clean milk than it will pay for dirty or unwholesome milk.

"It is difficult indeed to determine the best methods for the control of the milk supply. The state board of health cannot and will not attempt to solve the problem. It will assist in the passage of model ordinances, in the education of milk inspectors, in the carrying on of the work of local health officials, and, within reason, by analyzing samples of milk submitted to its laboratories. If it cannot be done by local health officers it is to be hoped that it will be done by the dairy interests themselves."

The report from the state department for the month of November showed that 1,826 inspections of food producing and distributing establishments were made. Of this number ten were reported in excellent condition, 963 were good, 772 were fair, seventy-six were poor and five were rated bad. Of the 684 grocery stores visited, six were in excellent condition, 366 were good, 295 were fair, fifteen poor and two were bad. Two hundred seventy-seven meat markets were inspected. But one was in excellent condition, 149 were good, 123 were fair and four were poor. Thirty-one dairies were visited and nineteen were rated fair, nine poor and three bad. Two of the 198 drug stores visited were rated excellent, 150 good and forty-six fair. Of the 258 bakeries inspected, and confectioneries, 146 were rated good, 101 fair, ten poor and but one excellent. Hotels and restaurants, numbering 242 were examined, eighty-seven receiving rating of good, 134 fair and twenty-one poor. Four creameries were rated good and four fair. Eleven of the twenty-seven ice cream parlors were rated good, twenty-two fair and four poor. Six flour mills were found to be in good condition. Other inspections were made of ice cream factories, slaughter houses, poultry houses, fish markets and creameries.

Two prosecutions were brought during the month, an unusually small number for a month in this state. One dairyman was fined for operating an unsanitary dairy and one prosecution was brought for the sale of bad eggs. Fifty-two condemnation notices were issued during the month, principally because of unsanitary conditions in food-handling establishments.

Almost exactly one-half of the samples of food analyzed at the state laboratories during the month were passed as legal, the total number examined being 101 and those passed as legal numbering fifty. Twenty-four of the sixty-one samples of milk were classed as illegal because of the presence of visible dirt. Two samples of sausage were found illegal because they contained cereals. Five of the six samples of lard were illegal because of the presence of cotton-seed oil and beef fat.

H. E. Barnard, state commissioner of food and drugs, has issued another warning against the use of water from the average well, without the utmost care. In part the state board's pamphlet said:

"More than five thousand well waters have been examined at the state laboratories since they were established in 1905, and of this number more than 50 per cent have been found to be polluted and unfit for family use. That is, the chances are greater that well water is polluted than that it is safe.

Food and Drug Law

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Commissioners on Uniform Cold Storage Laws

HEREWITH is presented a tentative draft of a proposed uniform law for the regulation of Cold Storage, prepared by the Committee on Purity of Articles of Commerce, of the National Conference of Commissioners on Uniform State Laws. The committee is composed of the following well-known men: Walter E. Coe, chairman, Stamford, Conn.; Walter C. Clephane, Washington, D. C.; Carlos C. Alden, Buffalo, N. Y.; Harry E. Kelly, Denver, Colo.; Chas. McCarthy, Madison, Wis.; Cyrenius P. Black, Lansing, Mich.; Thomas A. Jenckes, Providence, R. I.

"AN ACT TO REGULATE COLD STORAGE OF ARTICLES OF FOOD."

Section 1. That for the purpose of this Act, a "Cold Storage Warehouse" shall be defined as a place artificially cooled to a temperature of 45 degrees Fahrenheit or below, and in which food intended for sale is placed and held for a period exceeding thirty days, but shall not be construed as applying to private dwelling houses or to refrigerating cars.

The terms "article of food" and "articles of food" as used in this act shall be construed to mean and include fresh meat and fresh meat products, except in process of manufacture, fresh food, fish, game, poultry, eggs and butter.

Sec. 2. No article of food intended for human consumption shall be placed or received in cold storage if diseased, tainted or so deteriorated in any other way as to injure its keeping, or if not slaughtered, handled and prepared for storage in accordance with law and such rules and regulations as may be prescribed by the State Food Commissioner for the slaughtering, handling and sanitary preparation of food products for cold storage, under the authority hereinafter conferred. Any article of food, if intended for use other than human consumption, shall be marked by the owner before being cold stored in accordance with the forms prescribed or to be prescribed by the State Food Commissioner, under authority hereinafter conferred, in such a way as to plainly indicate the fact that such article is not to be sold for human food.

Sec. 3. No person, firm or corporation shall, by himself or another, place or store in any cold storage warehouse in this state articles of food as herein defined unless the same shall be plainly marked, stamped or tagged, either upon the container in which they are packed, or upon the food itself, with date of receipt: *Provided*, that all such food in any cold storage warehouse at the time this Act goes into effect, shall before being removed therefrom and within thirty days of the time this Act goes into effect, be plainly marked, stamped or tagged with the date when it was placed in cold storage or with the date when this Act goes into effect.

No person, firm or corporation, shall, by himself or another, remove such food from any cold storage warehouse unless the same shall be plainly marked, stamped or tagged, either on the container in which it is enclosed or upon the food itself, with the date when such food is removed from the warehouse: *Provided*, that when such foods are removed for interstate shipment, such marking, stamping or tagging shall not be required.

Sec. 4. No person, firm or corporation as owners or having control shall keep in cold storage any article of food for a longer period than twelve calendar months, except with the consent of the State Food Commissioner as hereinafter provided. The State Food Commissioner may, upon application, grant permission to extend the period of storage beyond twelve months for a particular consignment of goods, if the goods in question are found upon examination at the end of twelve months to be in proper condition for further storage. The length of time for which further storage is allowed shall be specified in the order granting the permission. A report on each case in which such extension of storage may be permitted, including information relating to the reason for the action of the State Food Commissioner, the kind and amount of goods for which the storage period was extended, and the length of time for which the continuance was granted, shall be included in the annual report of the State Food Commissioner. Such extension shall be not more than sixty days; a second extension of not more than sixty days may be granted upon a re-examination, but the entire extended period shall be not more than one hundred and twenty days in all.

Sec. 5. It shall be unlawful to sell, or to offer or expose for sale articles of food which have been held in cold storage

without notifying persons purchasing, or intending to purchase the same, that they have been so kept by the display of a placard conspicuously marked, "Cold Storage Goods," on the bulk mass or article, and it shall be unlawful to represent or advertise as fresh goods articles of food which have been held in cold storage.

Sec. 6. It shall be unlawful to return to cold storage any article of food which has once been released from such storage and placed on the market for sale to consumers, but nothing in this section shall be construed to prevent the transfer of goods from one cold storage warehouse to another: *Provided*, that all prior stamping, marking and tagging shall remain thereon, and that such transfer is not made for the purpose of evading any provision of this Act.

Sec. 7. Any person, firm or corporation desiring to operate or to continue to operate a cold storage warehouse shall make application in writing to the State Food Commissioner for that purpose, stating the location of his plant or plants. On receipt of the application the State Food Commissioner shall cause an examination to be made into the sanitary condition of said plant or plants, and if found by him to be in a sanitary condition and otherwise properly equipped for the business of cold storage, the State Food Commissioner shall cause a license to be issued authorizing the applicant to operate such cold storage warehouse or warehouses for and during the period of one year. The license shall be issued upon payment by the applicant of a license fee of to the Treasurer of the State for each such warehouse.

Sec. 8. In the event that any place or places, or any part thereof, covered by a license, under the provision of this Act shall at any time be deemed by the State Food Commissioner to be in an unsanitary condition, it shall be the duty of the State Food Commissioner to notify the licensee of such condition and upon the failure of the licensee to put such specified place or places or the specified part thereof, in a sanitary condition within a time to be designated by him, it shall be the duty of the State Food Commissioner to prohibit the use under his license of such specified place or places, or part thereof as he deems in an unsanitary condition until such time as it may be put in a sanitary condition.

Sec. 9. It shall be the duty of any person, firm or corporation, licensed to operate a cold storage warehouse, to keep an accurate record of the receipts and the withdrawals of the articles of food, and the State Food Commissioner shall have free access to those records at any time. Every such person, firm or corporation shall, furthermore, submit a monthly report to the State Food Commissioner, setting forth in itemized particulars the quantity of food products held in cold storage. Such monthly reports shall be filed on or before the fifth day of the following month, and the reports so rendered shall show the conditions existing on the last day of the month reported. The monthly reports so made to the State Food Commissioner shall be public records, and shall at all reasonable hours be open to inspection of the public.

Sec. 10. It shall be the duty of the State Food Commissioner to inspect and supervise all cold storage warehouses in the State and to make such inspection of the entry of articles of food therein as the State Commissioner may deem necessary to secure proper enforcement of this Act. He, or his duly authorized agents, inspectors or employees shall be permitted access to such establishments and all parts thereof at all reasonable times for purposes of inspection and enforcement of the provisions of this Act. The State Food Commissioner may also appoint and designate such person or persons as he deems qualified to make the inspection herein required.

Sec. 11. The State Food Commissioner may make rules and regulations with respect to the slaughtering, handling and sanitary preparation of articles of food for cold storage, and the violation of such rules shall be punished on conviction, as provided in Section 12 of this Act. Such rules and regulations shall be filed in the Commissioner's office, and shall be published in such newspapers as publish the laws of the State, and such rules and regulations shall not take effect until thirty days after such filing and publication.

Sec. 12. Any person, firm or corporation violating any of the provisions of this Act shall upon conviction be punished for the first offense by a fine not exceeding one hundred dollars (\$100) and for the second offense by a fine not exceeding one thousand dollars (\$1,000) and by imprisonment of not more than six months or by such fine and imprisonment.

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NEW YORK

Dasheens Good Stuffing for Turkey

NEWLY INTRODUCED VEGETABLE SHOULD BECOME IMPORTANT FOOD CROP

IF the housewife can obtain dasheens she may make from this recently introduced vegetable a delicious stuffing for turkey. Incidentally she may bake them like potatoes and obtain a dish possessing something of the flavor of a boiled chestnut, she may make them into a pie similar to the sweet potato pie. Dasheens are also good boiled, roasted, fried as fritters, or a salad. Dasheen flour will make biscuits, muffins and griddle-cakes, possessing a superior flavor.

The dasheen, which has been recently introduced here by the Department of Agriculture, is the root of a plant which resembles that known familiarly as the "elephant's ear," but the roots of the ordinary elephant's ear are not dasheens. The vegetable looks like an undersized cocoanut, although it sometimes grows to considerable size. An exceptional one recently received by the Department weighs 6¾ pounds.

The dasheen originally came from China, as its name seems to indicate a corruption of the French "de Chine." It has already been grown successfully in our South and should eventually become one of the most important field crops there, but as yet not enough people have become interested in it to justify dealers in putting it on the market.

However, if the housewife is fortunate enough to be where dasheens have been successfully grown, she may make this filling for her Christmas fowl:

Two parts of riced dasheen, 1 part of bread, 1 egg, butter, according to quantity of above. Season to taste with salt, pepper, sage and onion.

The dasheens should be boiled and riced in the same way as are potatoes.

The fact that the dasheen has been extensively written up as a substitute for the potato has led to a number of inquiries from foreign countries regarding its value.

Norway, Sweden, Germany and Austria have sent in these inquiries, which show the eagerness of Europeans to become acquainted with this new table delicacy.

The Department of Agriculture has been forced to reply to the inquiries from central and northern European countries that the dasheen cannot be grown successfully where the summers are not tropical. In fact, the dasheen cannot be grown with commercial success where the frostless season is less than six months, and a longer season is desirable. Contrary to the belief of many people, the United States is a country of tropical summers, and the dasheen has been grown successfully as far north as Norfolk, Virginia. Nevertheless, there has been no general interest shown in the vegetable, although the Department of Agriculture has previously stated that every Southern home would do well to grow at least a small quantity.

From the Carolinas southward the dasheen may be cultivated with a high degree of success in any rich, sandy loam or soil, where there is plenty of moisture and heat. It will not grow in soil suitable for cotton, but may be grown in soil suitable for potatoes. The importance of the dasheen to the Southerner lies particularly in the fact that it matures in the fall, whereas the main potato crop in the South matures in the spring, and in winter the Southern states have to obtain their potato supply from the North. If dasheens were grown and properly appreciated, there would probably be little need for the South ever to buy northern-grown potatoes for food.

The Department's Office of Foreign Seed and Plant Introduction, which has been the means of making the dasheen known in America, has received a number of letters like the following:

"On March 20, 1913, I received from your Department some dasheens shipped by the Brooksville, Fla., station. I planted them March 24, on a loamy soil here in Monroe, La., two blocks west of Ouachita River. They soon came up and were large enough to begin eating the greens and stems which our family soon became very fond of. I grew 40 hills. The plants grew up 5 feet high. Some of the plants made only 5 lbs. of dasheens, while others made as much as 10 lbs. to hill. I have not dug mine yet. In fact, I can leave them in ground this winter here as the ground does not freeze so much here. We have been eating the dasheens for some time and I like them better than Irish potatoes.

"I think you should add another name to them and call

them 'dasheen or poor man's friend,' since any person with very limited space can plant a few hills in garden or yard early in spring and have nice fresh greens from early spring until frost and then best of all come the tubers."

Dasheens, large or small, may be baked like potatoes, in a quick oven. They should first be washed and scrubbed to remove the fibrous part of the skin. When practicable to do so it is often desirable to scrape the dasheens before baking, as they are then more convenient for eating and the soft crust which forms when they are properly baked is particularly delicious. The corns may be cut in half from top to base in order to lessen the time needed for baking. The time required is about the same as for potatoes of the same size. They should be served hot. Season with salt and plenty of butter, and pepper if desired. Gravy instead of butter may be used.

The dasheen when properly baked and served is mealy and the flavor is much like that of the white potato, but more or less suggestive of chestnuts. If not overbaked, the skin when properly scrubbed or scraped beforehand will be found of delicious flavor. As the dasheen is drier than the potato it requires more butter.

This vegetable is already a staple article of food for millions of people in tropical countries, although Americans have not yet evinced much interest in it. In general it may be used in the different ways in which the white potato is used. It may also be candied like the sweet potato. The flesh, when cooked, is frequently somewhat gray or violet, but this does not affect the flavor.

American commercial growers have not as yet taken up the dasheen, although foreign legations are asking the Department for its seeds and roots. It is the opinion of experts of the Office of Foreign Seed and Plant Introduction that the well-established dealer who featured the dasheen could undoubtedly build up a paying trade in a short time. It is simply a matter of furnishing more people opportunity to eat it properly prepared. Children who have become accustomed to it have shown particular fondness for this vegetable. In general it may be said that there is nothing better in the line of starchy vegetables.

The Office of Foreign Seed and Plant Introduction, U. S. Department of Agriculture, Washington, D. C., will gladly furnish information to commercial growers of vegetables throughout the South as to how the seeds and roots of the dasheen may be procured for introduction. The Department is glad to furnish those interested its bulletin entitled "The Dasheen, A Root Crop for the Southern States." The housewife will find many recipes in it for preparing savory and delectable dasheen dishes, particularly one which she may use in preparing a filling for her Christmas turkey—provided only that she can get the dasheens.

NOTICE TO FOOD OFFICIALS.

The following is a copy of the letter sent by Dr. C. L. Alsberg from the Bureau of Chemistry to members of the Bureau of Chemistry and others concerned:

"In further reference to your letter of November 3rd, I wish to state that the attention of the Board of Food and Drug Inspection has been called to the practice of using 'cull' or other beans, which are moldy, musty or otherwise decomposed in various canned food products, such as baked beans or pork and beans. Products made from such material are manifestly contrary to section 7, paragraph 6, in case of foods, of the Food and Drugs Act.

"The use of tomato sauce or pulp which is prepared from decomposed tomato or trimming stock, in the preparation of baked beans or other food products with tomato sauce, is also deemed to be in violation of the law."

United States District Attorney Wilkerson held that the contents of 800 cans labeled "Super-grade Tomatoes" were unfit for food, and deputy marshals seized the consignment. Another consignment of decomposed canned goods believed to have been in the Ohio floods also was seized.

BUY PURE COMPRESSED YEAST

The discussion about using starch in Compressed Yeast has reached the point in the United States of a decision forcing those who used it to declare the fact on the wrapper or label.

That is how we administer the Food Laws in this country.

In Austria where they do things more thoroughly, the chemists of the Royal Experiment Station of Vienna investigated the question for some years and finally reported against the use of Starch in Compressed Yeast for the reason that when mixed with Yeast "STARCH IS LIABLE DURING A CERTAIN STAGE OF THE DETERIORATION TO HIDE PUTREFACTION OF THE YEAST AND THEREBY FAVORS THE MARKETING OF PRODUCTS UNWHOLESOME AND DANGEROUS TO THE PUBLIC HEALTH."

Thereupon the Austrian Government promptly passed a law prohibiting altogether the use of starch in Yeast.

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NUMBER TWO

Chicago, February, 1914

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DR. ROBERT L. EMERSON,
Assistant Chief of The Bureau of Chemistry,
United States Department of Agriculture.



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FEBRUARY, 1914.

NUMBER 2.

CHANGES MADE IN FEDERAL FOOD AND DRUG CONTROL.

AS the AMERICAN FOOD JOURNAL goes to press, it is reported on reliable authority that extensive changes are about to be made in the Federal Food & Drug Control work. The Board of Food & Drug Inspection has been abolished, effective February 1, and a number of branch laboratories of the Bureau of Chemistry have been discontinued. Three inspection districts have been created, the Western District with headquarters at San Francisco, where Dr. B. R. Hart, formerly chief of the Cincinnati Laboratory, will be in charge; the Central District, with headquarters at Chicago, the official in charge being not yet designated; and the Eastern District with headquarters at Washington in charge of W. G. Campbell, formerly Chief Food & Drug Inspector.

It is understood that Dr. A. L. Winton, for many years in charge of the Chicago Laboratory of the Bureau of Chemistry, has been transferred to Washington and placed in charge of the research work for the entire Bureau. This is a promotion for Dr. Winton. No one has yet been designated to fill the vacancy caused by this promotion.

It is also understood that A. S. Mitchell and H. M. Loomis, the retiring members of the now defunct Board of Food & Drug Inspection, will be retained in the Washington office of the Bureau of Chemistry and will have important detail work assigned to their charge.

For many years the Board of Food & Drug Inspection was a power in Food & Drug Control work. The original members were Dr. Wiley, Solicitor McCabe and Dr. Dunlap. With the passing of Wiley and the accession of a capable scientist like Dr. Alsberg, the necessity for the Board disappeared, and it is known that the action now announced has been contemplated for months.

This plan for the betterment of the department has been under consideration for some time. But inasmuch as this change might by some be considered a radical departure, Dr. Alsberg has been disposed to give the matter the most careful consideration.

ASSISTANT CHIEF OF THE BUREAU OF CHEMISTRY.

DR. ROBERT L. EMERSON, whose portrait appears on our cover page, is assistant chief of the federal bureau of chemistry and comes to his position, well prepared for the exacting duties of his high office.

Dr. Emerson is now in the very prime of life, being forty-one years old, vigorous in mind and possessed of a great amount of enthusiasm and energy which he brings to his duties. He was born in Cambridge, Mass., attended public schools, graduated from Harvard College, receiving an A. B. degree in 1894.

In 1896 he entered Harvard medical schools, receiving his M. D. degree in 1900, after which he went to Europe and spent a year at Strasburg and several months in Berlin, where he studied physiological chemistry and allied subjects. In 1901 he returned to the Harvard Medical School, where he was instructor in physiological chemistry under Dr. Wood, the well known toxicologist, and was his assistant in many court cases of this nature. On the death of Dr. Wood in 1905, the chemical department of Harvard Medical School was reorganized, and since that time Dr. Emerson has carried on a private laboratory in Boston along the lines of toxicological problems as well as food and general medico-chemical lines.

Dr. Emerson has a reputation as an author. He edited and rewrote the second volume of Wharton & Stillé's Medical Jurisprudence and also wrote for Appleton's Medical Series a book on Legal Medicine and Toxicology. Besides this he is the author of a number of scientific research papers.

In the world of food control the position of assistant to Dr. Alsberg is regarded as a very important office, for upon the man occupying this position falls a great amount of work to which the chief himself cannot give his attention. In fact a man to successfully fill the place of an assistant in this work should be qualified to step into the place occupied by his superior officer at any time. Indeed an ideal assistant is in fact a man upon whom his chief can at any time place the burdens of the office.

INCREASED USE OF CANNED FOODS.

WITH the great improvement in machinery for the economical packing of food in cans has come an increased demand for this class of food products. Not alone has there been a steady improvement in the mechanical department of the packing establishments, but what is of still more consequence to the consumer the goods that go into the can today are much superior to the pack of a few years ago.

This is due not only to improved methods that have to do with economy but has come about largely through the enforcement of the federal and state pure food laws. A few years ago anything in cans from poor stock diluted with water to "swells" unfit for food were placed on the market and sold for what they might bring. Naturally, the consumers who had made a few meals of this inferior stuff, cut the canned foods from their list of grocery purchases.

It is much different today. The food laws demand that only sound vegetables, fruits and other food products shall be used for canning. Then the sanitary laws step in and compel the handling and packing of goods in sanitary buildings by people who have due regard for the importance of cleanliness.

Having improved the quality of their pack, those who put food in cans got together and started a campaign of publicity through which they have been able to make the consumer understand that canned foods are convenient, economical and wholesome.

The result of this work has been to promote a greater interest in canned foods of every description throughout the country and to greatly increase the consumption of this form of food product.

With the increased demand for canned foods has come a desire on the part of packers to meet the increased demand for improved quality. Those who have raised the standard of their goods have created an asset in their name, and naturally enough the packer will guard this asset with jealous care.

Under the present condition of the canned goods industry it is fair to presume that the present standard of excellence will not only be maintained, but will be improved upon.

During the past season the general run of canned goods were better than ever before, although some particular lines, from some localities are not up to the high standard set by the leading packers. Still there has been very few canned foods put on the market that are not strictly wholesome. If it happens that some are below the standard of excellence set by the best packers that is no reason why they should be destroyed. Such goods should be sold for what they are worth.

During the past season an unusual amount of vegetables and fruit went into cans. The people have got the canned food habit to such a degree that no doubt the larger pack will be cleaned up before another season.

As a matter of national economy the canned foods serve a splendid purpose. Vegetables and fruits that would otherwise be wasted are now put into cans for use at a time of year when fresh vegetables and fruit are not to be had. The canners' art has reached such a high degree of perfection that the housewife may have good fruit and vegetables the year round on her table. In these days of food scarcity this is very important as the canned foods make it possible to save

on other varieties of food and tend to keep down the cost of such food products.

The cost of canned food products is comparatively low considering the value of the food and the convenience with which they may be kept and served. Moreover, under the present economical method of handling by the packers and the care with which food is packed, the housewife is spared the labor and expense of "putting up" foods as was formerly done in the home. Not only this but it is not possible for this work to be done as successfully in the kitchen as it is in a well appointed factory, managed by experts.

We are using more and more canned foods each year of ever increasing variety. If present prices continue the canned foods' output is likely to continue to grow. The margin of profit on these goods is small for both packer and distributor, and a lower level of prices can only come as a result of improved methods of packing and distribution. No one, however, can properly complain of the present prices of canned foods.

LET THE SPRING CHICKEN GROW.

THE federal government has made a move to increase the meat supply by prohibiting the interstate shipment of calves for the purpose of slaughter. How this will work out it is difficult to say. It is an experiment and if it shall give us more mature beef cattle the consuming public will have cause to rejoice.

The great difficulty with the calf industry is that the farmers do not feel they can afford to grow as many of them into beef as the public seems to think they should. But we will see how the government rule works out. Meanwhile the law should be observed.

The law makers, both Federal and State, would do a good job if they would prohibit the sale of spring chickens about the size of a snipe. The market is flooded with this stuff in answer to the demands of those epicures who can afford to buy chickens a few weeks out of the shell. But the public at large must go without mature chickens because of this slaughter of miniature chicks. The commission merchants realize that the killing of these little things called spring chickens is not a wise thing to do and would be pleased to have them kept off the market.

As a matter of fact the price the poultry raiser gets for his poor little spring chickens does not warrant him in rushing them to market. To hold them and get more money and more real profit would seem to be a wise thing to do, which the poultry raiser overlooks. If they were not provided with a market for these small spring chickens they would be forced to grow them to a reasonable size, through which the people at large would be benefited.

Of course the epicure would complain that his right to spend his money for such delicacies as his jaded taste demanded, was being interfered with. But the epicure would learn to eat better chickens at a smaller cost, and he might get some satisfaction in knowing that his less fortunate neighbor could bring home a chicken from market occasionally. He would get accustomed to the new order, just as he has been compelled to get used to eating larger fish. Our laws prohibiting the taking and selling of undersized fish. The authorities feel that it were better to let the fish grow a little larger before taking them out of the water and offering them for sale.

Let the little spring chickens grow. It will help increase the meat supply, already so short that the average man feels the pinch of present meat prices.

Besides, if the poultry raiser will but wake up to the fact he will learn that in the long run he will make more money by allowing his chicks to grow than he will by rushing them to market as soon as he can after they are out of the shell.

NINE YEARS OLD.

AT the close of its ninth year, the AMERICAN FOOD JOURNAL occupies a fixed place in the pure food world that is peculiar in that it is the only publication of its kind in the country. There are any number of food journals, it is true but for the most part these publications address themselves to the consumer. THE AMERICAN FOOD JOURNAL is issued in the interest of those who are in control of the pure food work of the country and the manufacturers of pure food products, as well as to the consumer. It is essentially a pure food journal and as such deals with the pure food problems of the day as they relate to the production, distribution and consumption of food. With its well developed organization the AMERICAN FOOD JOURNAL is in easy touch with the food commissioners of the country and with the federal department in all its pure food ramifications.

From these sources of news and literature of the pure food world to draw upon, this publication is able to present to its readers each month all that is of value to those interested in the promotion of pure food.

The chemists of the country interested in pure food work are among its readers and contributors. From these men of science articles of value to those engaged in pure food work are offered its readers so that they may be well advised of that feature of pure food work.

Another group of valued readers and correspondents engaged in promoting pure food are the domestic science clubs and women's organizations that exist for the purpose of bettering our food supply. These organized bodies are playing an important part in the promotion of pure food. They find the AMERICAN FOOD JOURNAL helpful in their work, and in turn they are helpful to this journal in the carrying on of the work for which it exists.

Finally, the food manufacturers have come to regard the AMERICAN FOOD JOURNAL as a guide in the conduct of their business. From its columns they learn all that is going on in the various departments of food control and are thus able to avoid those inconveniences and expenses that fall upon those in the trade who do not keep themselves well informed.

The place which the AMERICAN FOOD JOURNAL has made for itself in its nine years of existence is secure. But the field in which it labors is growing. It will therefore be its duty at the beginning of a new year to reach out and fully occupy the new field not yet fully covered. We are not content to cover the greater part of this field. We want to put the AMERICAN FOOD JOURNAL into the hands of every person or firm interested in the work that we are doing. Extra exertions will be made to reach those who need the paper. The work could be helped along if our readers who have been with us long enough to appreciate the importance of our work will lend a helping hand by making it their business to see to it that their friends interested in promoting pure food get their names on our subscription list.

FOOD CONTROL AT ITS SOURCE.

AT the recent meeting of the National Civic Federation held in New York City, Dr. Carl Alsberg spoke by invitation on the sanitary and hygienic control of foods. Dr. Alsberg's ideas as expressed at this meeting represent what might be regarded as the new thought in the pure food world. That is to say, instead of spending so much money on police work, he would economize by spending money for prevention. If the food manufacturing establishments can be made to observe good sanitary and hygienic laws there will be little food stuff on the market for inspectors to seize.

Dr. Alsberg spoke as follows:

I take it that your purpose in inviting me to address you was to have me suggest ways and means for increasing the usefulness of this great altruistic association. You will pardon me therefore, I am sure, if I waste no time upon preliminaries but plunge at once into my subject.

There is one need in food control which is so vastly more important than all others that I propose to urge it alone upon your consideration. It is adequate sanitary and hygienic control of food.

By the sanitary and hygienic control of foods I mean the prevention of traffic in foods dangerous to health. To prevent this traffic is far more difficult than to prevent mere fraud in food products. Fraud may usually be detected by a chemical analysis. The danger to health that may lurk in a food can easily be detected in this way unless indeed the food contain some simple poison like arsenic or lead. If, however, the food be manufactured in unsanitary surroundings, or if it be the bearer of tuberculosis, typhoid, measles, or scarlet fever, this can hardly be detected. Hence, in my opinion, foods such as milk and butter, meat, fish, and shell fish, which are capable of this kind of contamination, should receive the greatest attention.

The only safeguard against these sources of danger is inspection of the place of production and medical supervision of the workmen. It should be impossible, for example, for a dairyman with a case of typhoid in his family to ship milk.

Obviously the exercise of such control of the sanitary conditions of food production is a task for the individual states. I would, therefore, urge upon you to use every effort to secure such sanitary control of food production in every state. I can conceive of nothing more important.

If such a sanitary control is to be established you must clearly understand that to be effective it must rest upon an adequate health service. Outside of our larger cities such a service is most unusual. Most small towns and rural communities are without adequate health protection. The greatest need of the country today is an adequate staff of well-trained, well-paid, full time health officials in every county in every state. With this must go laws that are enforced for the recording of vital statistics of communicable diseases. Until all this is done there can be no adequate sanitary control of foods. Just as long as we do nothing for the health of our country people just so long will typhoid and similar diseases be imported into our cities.

I fear you may think I have digressed from the subject of food control. I hope, however, I have convinced you that the most dangerous foods can only be controlled where there is a good health service. If what I have said causes this great organization to act for a better rural health service, I shall feel that I have accomplished a great deal.

EUGENICS AND PURE FOOD.

MOST people who have become interested to a greater or less degree in the modern philosophy of eugenics have come to regard the matter as something that will find an expression many years hence of the labor of today. Or, in other words, according to the popular notion eugenics has simply to do with the breeding of a better race. As a matter of fact eugenics in its best sense is a thing of today. It is something which begins to happen so soon as an effort is made to give the philosophy force, because there can be no better race bred from the present race until the conditions under which the present race exists are improved. A superior race cannot be bred

from an inferior race. Therefore, the first step toward improving the descendants of the present generation is to improve the parent stock.

This is the sensible view taken of eugenics by the men and women who met recently at Battle Creek, Mich., to consider this important subject.

At that meeting the fact was developed that as a prerequisite toward a better future race it was essential to provide the present generation with better food; with food that is wholesome and that brings the question of eugenics, which seems to be a thing of the future, right up to date, or back to now.

People as a rule, no matter how unselfish they may be, like to see an expression of their work. The eugenic problem as it is misunderstood appears to be so far away that those who labor in its cause feel they will never see the fruit of their labors. These may take heart and know that the first lesson in eugenics is good wholesome food, and that the next lesson is sanitation. It is in fact a thing of today, and all people who have a due regard for hygiene and sanitation and right thinking are laying the foundation of a better race of people.

The stock breeder concerned with improving the excellence of his breed does not allow his stock to shirk for themselves. He makes certain to begin with that his herd is well housed. He sees to it that they have wholesome food and sanitary surroundings. He improves what he has with the full assurance that the improvement made will be transmitted by heredity, giving him an improved breed.

Our pure food laws rightly enforced is fundamental to the philosophy of eugenics.

CAMPAIGN OF EDUCATION.

COMMISSIONER J. SCOTT MATTHEWS of Illinois has for some time past been preparing a rather elaborate plan of education on the pure food question for the people of Illinois. Quite recently he went to Washington for assistance and before he came away he secured the services of Mr. Ross and Mr. Kelley, experts on milk and all that pertains to the handling of milk from the cow to the consumer. Mr. Kelley will be sent over the state to lecture to the people on the milk problem.

Mr. Ross comes to the Illinois food commission from Omaha, where the federal office over which he presided has been closed. In short, Commissioner Matthews persuaded the federal department to loan him these two valuable men for the purpose of carrying out his plan of education.

Further plans have been made to canvass the state in an educational way with a well-equipped moving picture show, supplemented with interesting lectures on pure food and sanitation.

At the present time it is the plan of Commissioner Matthews to make a special drive at the unsanitary condition of the dairies of the state, more especially in view of the fact that Governor Dunne has recently proclaimed against the importation into the state of tubercular cattle.

While the commissioner purposes to specialize on milk and dairy sanitation, he expects to devote a great deal of energy to the fly and other nuisances.

Another feature of Commissioner Matthews' campaign of education will be the presentation of facts hygienic and sanitary before the school children of the state. The campaign of education contemplates

a scheme to interest the boards of education of the state and through them the growing generation under their charge.

Of course this is going to the very root of the educational problem. We may educate some grown people, but the world is full of men and women so wedded to habit that the most skilful educators cannot bring them into a new method of thought and action. But with the developing boy and girl it is different. They are impressionable and anxious to learn. They have no firmly fixed habits to be removed.

By all means let us encourage the food commissioners to educate the rising generation.

THE CONSUMER'S BURDEN.

THOSE who have felt pity for the farmer because of the poor corn crop need no longer feel bad about the farmer's immediate future, because the experts have made figures to show that the worthy tiller of the soil will receive more net cash for his corn crop this year than he has received in many years when there has been a prolific yield.

For one thing, it will not cost the farmer as much to gather his corn this year as it did last, because there is not as much corn to gather. Then it will not cost as much as usual to take care of it and send it to market. The higher price he receives for his product will take pretty good care of the loss resulting from the short crop.

The consumer will not fare as well as the farmer. On his purse will fall the shortage blow, and he will feel it whenever he buys cornmeal or beef, mutton, pork or poultry made from corn.

If we have any tears to shed over the corn shortage let us not waste them on the farmer. Rather let us weep in the interest of the consumer who must bear the burden of the short corn crop affliction.

DR. CRUMBINE IN ILLINOIS.

AN interesting item in Merchants' Journal concerns the failure of Commissioner Matthews of Illinois to secure the services of Dr. Crumbine of Kansas for a number of months to assist the Illinois Commissioner along expert sanitary lines. It is to be regretted that the Kansas authorities could not spare Dr. Crumbine from his valuable work in that state, as he undoubtedly would have been of the greatest help in Illinois. Food authorities and the public generally have come to regard Dr. Crumbine as a model food official. He is vigilant in the enforcement of the law, but he is also fair to manufacturers. Added to these attributes is a ripe judgment and experience, and a first-class knowledge of health conditions. He is really the originator of the "swat the fly" crusade, and was the first official to advocate the abolition of the public drinking cup. He also did away with that standby of rural hotels, the roller towel. It is said that when Dr. Crumbine issued his order doing away with the roller towel, the proprietor of a Kansas hotel hung on the wall where the towel formerly hung this legend, "Gone where the Crumbine twineth."

The people of Kansas are to be congratulated upon having such an efficient public official as Dr. Crumbine and they are not to be blamed for wishing to keep him at home to look after the food supply of his own state.

It speaks well for Commissioner Matthew's keenness of perception that he should have spotted Dr. Crumbine as a likely aid.

Canners Laboratory at Washington

WELL EQUIPPED PLANT OPERATED IN THE
INTEREST OF THE CANNING INDUSTRY

ONE of the most practical associations in the country is the National Canners' Association, whose seventh annual convention will be held at Baltimore, Md., February 2-6. This organization, composed of canners and those in allied industries, has been pressing for better recognition, better goods and better markets for the canners' output, and year by year a healthy growth has been made.

This association maintains in Washington, D. C., an extensive laboratory, presided over by chemists of international fame. Their duty is to aid the canners of the country at large, through their experimental work in the laboratory.

Mr. Frank E. Gorell is the secretary of the association and its executive officer, devoting his entire time to the promotion of the canned goods industry through its organization.

B. M. Fernald is president of the National Canners' Association, while W. C. Langbridge and Richard Dallam are president respectively of the allied industries, the Canning Machinery and Supplies Association and the National Canned Foods and Dried Fruit Brokers' Association.

The technical administration of the laboratory and equipment are entirely in the hands of Dr. W. D. Bigelow and Dr. A. W. Bitting. Dr. Bitting is a bacteriologist and has had a large amount of experience in the construction of canneries, investigations and canning operations. Dr. Bigelow, of course, needs no introduction on account of his recent connection with the Department of Agriculture, as assistant chief of the Bureau of Chemistry, at Washington, where he had charge of the general work of the bureau.

The purpose of the laboratory is to study the problems of the industry, to find out if various difficulties cannot be overcome, and to see if the low quality of some products can be improved.

The National Canners' Association laboratories are constructed so as to carry on the research work that cannot be done by the individual canner but which is so essential to the industry. Their laboratories are large enough for commercial experiments, they have the capacity to do just what is done in any cannery. Samples can be taken at different

stages and tested by the laboratories in connection with the canning plant.

Great problems which have troubled the canner for years are being worked out in these laboratories with little effort, due to the thorough equipment.

For the past two years Dr. Bitting has been studying, in connection with the Bureau of Chemistry, the results of the use in fruit of syrups of varying degrees of density, and the different processes of canning. The quality and appearances of the product at different lengths of time have been closely observed. Some products have improved wonderfully in flavor after being canned and remaining for a time. The

apricot for instance showed a remarkable improvement in the flavor after remaining in cans for a time.

By weighing in the cans a certain amount of syrup (water and sugar) it was possible to determine how much fruit and what strength of syrup is used in any can of fruit manufactured. It has been discovered that the amount of sugar in fruit not only influences the flavor of the product but also affects the tenderness, and also the action of the product on the metal of the container.

In the past there has been trouble in preserving the natural color of some canned products. In canned corn the light color is desired, but in a great many cases it would turn dark next to the tin where there is the greatest amount of heat. This has been overcome by the

continual agitation of the cans during the process of sterilization; this trouble has also occurred in the preparation of other canned articles.

In the manufacture of hominy a great deal of trouble has been encountered by the appearance of black grains in the prepared product. The blackening does not impair the flavor or quality of the article but it is objected to by the customer. Not only with hominy is this the case, but other articles of prepared foods, such as whitefish, show black spots. While not affecting the pureness or the flavor the sale is retarded by the appearance.

There is any number of questions of processing coming up all the time. At present a problem in hand is to prevent canned articles after sterilization from over-cooking by their



NATIONAL CANNERS' LABORATORY.

own heat. This is no little undertaking in itself, on account of the amount of processing differing with the same articles in different localities at different seasons.

A study is being made of the analysis of evaporated and condensed milks, with a view to adopting in the trade the method which gives more accurately the actual contents of the product, so that a manufacturer can tell exactly what sort of article he is putting on the market, and to enable him to keep it above the standard. There are a number of methods being used by different manufacturers at the present time, and



LABORATORY FOR THE DETERMINATION OF TIN CONTENTS OF CANNED GOODS.

it is the purpose of this experiment to determine the most accurate process, and make it uniform.

The question of byproducts covers a vast field. This problem will receive the attention of the laboratory. It will be determined just what is suited as fertilizer or other uses.

The proper disposal of refuse to avoid a nuisance to the plant or the neighbors, and the sanitary construction of canneries so that it is practicable to keep them clean is one of the big problems. A committee has been appointed by the association to investigate along lines of perfect sanitation and frame a law to be observed by all canners which is a great deal more strict than any sanitary laws of the statute



EXPERIMENTAL CANNING PLANT.

books of any state today. All the influence of the association is being exerted for strict sanitation which will result in a purer article of food.

The financing of the association and the laboratory is by contribution of the allied industries in varied amounts. The American Can Company and the Continental Can Company

have jointly agreed to contribute yearly for a period of three years, to the maintenance of the laboratories, in the proportion of two to one, an equal amount to that raised by the members of the National Canners' Association. In addition to this the following subscriptions have been made: American Sheet and Tin Plate Company, Pittsburgh, \$2,500 per year for three years; The John Boyle Company, Baltimore, \$300 per year for three years; Sothern Can Company, Baltimore, \$300 per year for three years; W. W. Boyer and Company, Baltimore, \$200 per year for three years.

The laboratory at a cost of \$16,000 is in every respect equal to that of the United States government laboratories. It was donated to the association by the American Can Company.

The research work of the laboratories will cost approximately \$32,000 per year. The principal object of these laboratories is research work, to benefit the industry.

The results of all the work of the laboratory are for the benefit of the canning industry. Members of the association and non-members alike receive the benefits of all the research work, the idea being that any bad product on the market injures the whole industry, the one aim is to improve the quality and thereby increase the demand for the canned article.

The building occupied by the laboratory is located at 1739 H street, N. W. It was erected as a residence and was used for that purpose for a number of years. When the fashionable residence district moved farther northward it became less desirable for that purpose and for several years was not occupied.

In addition to a roomy ground floor it contains three stories



BACTERIOLOGICAL LABORATORY.

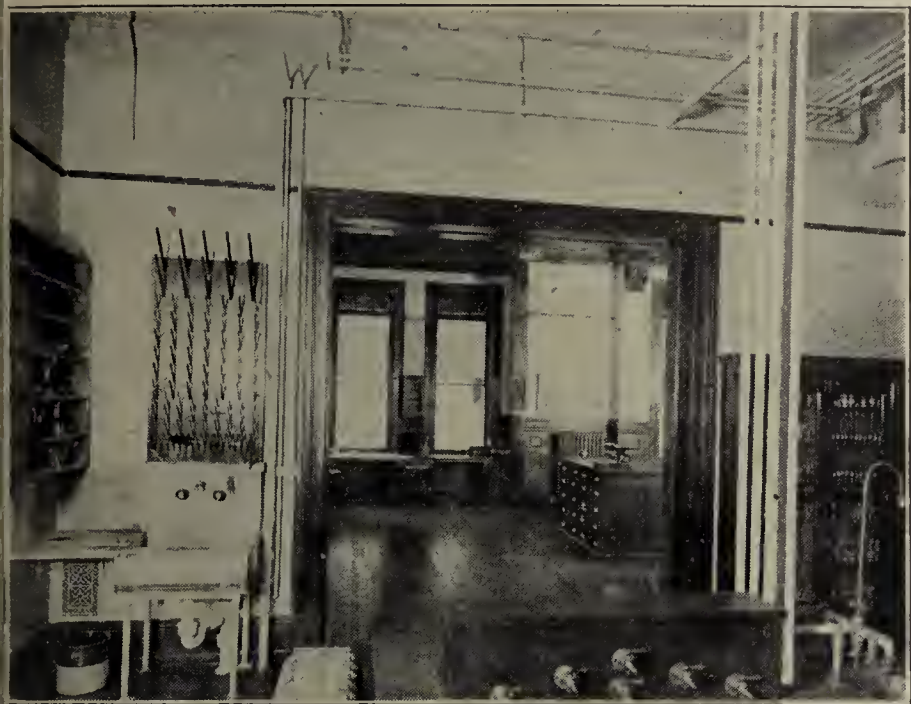
and an attic which has abundant space for the storage of apparatus and chemicals.

The two rear rooms of the basement are used for the canning equipment, and to afford better light and ventilation an addition has been constructed for the canning machinery. Skylights are hinged to facilitate ventilation.

The front room of the ground floor is now used for the storage of the experimental pack which the association has been investigating for several years. At the rear of the ground floor is the cannery where an 8-H.P. boiler for steam and heat is used in the canning operations; horizontal and vertical retorts; vacuum pans; kettles for soup and jelly; capping machinery; pneumatic press—in fact all the equipment which is necessary for experimental work on a small commercial scale. This cannery is really the unique feature of the laboratory, as it permits the following out of the experimental data in the laboratory on such a basis that the results can be applied immediately to the work of the canner on a larger scale. When handled in connection with the chemical and bacteriological laboratories it is expected that the canning operations can be studied to better advantage than has heretofore been possible.

On the first floor of the building in front is a large room, the former parlor of the residence, which is now used as a general office for the laboratory. The back of the building on this floor is used by Dr. Bitting for his bacteriological and biological laboratories.

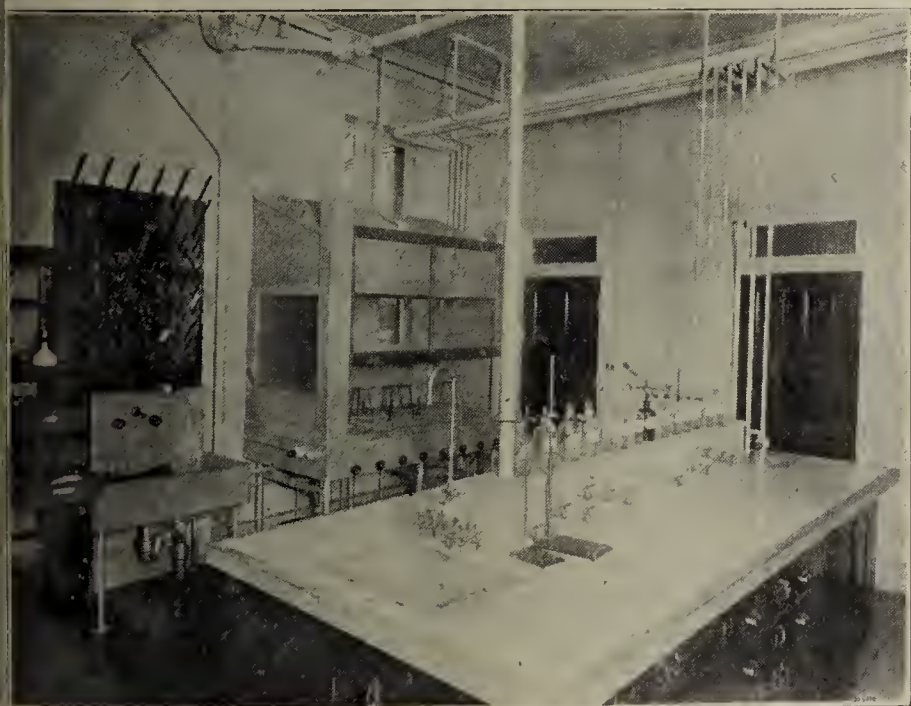
On the second floor are located three laboratory rooms. The front two are intended for general laboratory purposes, while the one at the rear is equipped especially for work with evaporated milk. In a small room at the rear is a pump to supply blast and vacuum to the laboratory tables. A small room at the front of the building has been converted into a library for the chemical laboratory. The association thus far has been at no expense in purchasing books or periodicals for this library, as the employes have found their own books sufficient.



ANOTHER VIEW OF THE BACTERIOLOGICAL LABORATORY.

On the third floor in the front is a small room which has been only partially equipped and for which no work is planned in the immediate future. The room is available for future growth if found necessary. A front corner room has been equipped as a general laboratory room. Just back of it is another large laboratory room especially equipped for the determination of tin salts in canned foods. At the rear, separated from the rest of the building, is an apartment of two rooms and bath which are occupied by the janitor.

The front laboratory on the second floor and the next to it the table tops are of tile, first vitrified and subsequently



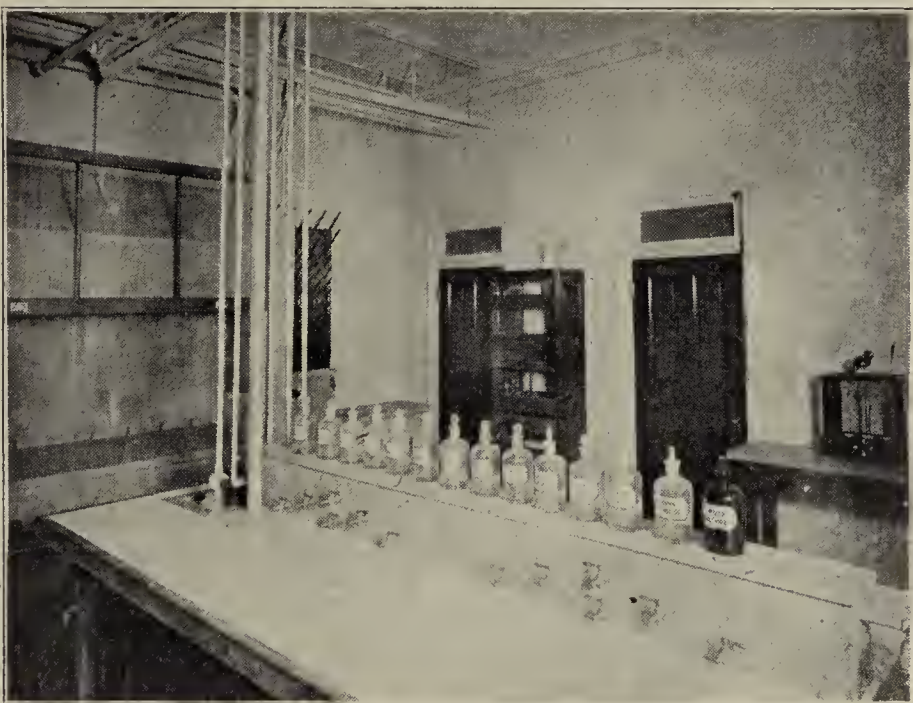
GENERAL LABORATORY ROOM.

glazed. Each laboratory table is supplied with water, gas, blast and vacuum pipes and on each side of the pipes mentioned is an electrical conduit, one supplying 110 and the other 220 volt power circuits. At the farther corner of the room is a hood, or fume chamber, in which operations giving off an unusual amount of heat, or giving off unpleasant odors,

are conducted. On the end of the hood are two plugs, for 110 and 220 volt current. One point showing the details considered in the construction of the laboratory is that these plugs are not interchangeable; it is, therefore, impossible to plug 110 apparatus into 220 volt current and burn it out. In addition to the center laboratory table in the farther side of the room is a wall table also for laboratory work. Instead of tile top this table has a top of stone. Its height is six inches less than that of the center table, to permit the use of higher apparatus. Just on the right hand of the center of the room, in the farther end, is a small table with white glass top, intended for observation of certain changes of colors which mark the end point of certain chemical manipulations. All things considered, this room is perhaps the most nearly ideal in its arrangement.

In the back room of the second floor is the sink, with draining board above, which is installed in each room for washing apparatus. There is also a small still, which is believed for the present at least to afford sufficient supply of distilled water. A double laboratory table stands in the center of the room. In this room the tops of the laboratory tables are of wood, treated with an acid proof black finish. Like all the other laboratory rooms in the building, this room is excellently lighted; two large windows, really groups of windows, at one side and another one on the other side of the room. In this room is the analytical balance.

The front room of the third floor is practically a duplicate of the first room, as it is exactly above it. The table tops, however, are of wood instead of tile and stone. Two laboratory tables are in the center of the room, the hood on the



GENERAL LABORATORY.

left and the end of the balance table on the right.

The second room from the front on the third floor has been especially equipped for the determination of tin salts in canned foods. Before the tin can be determined it is necessary that the organ matter in the food be destroyed. This was formerly done by burning in an oven in a porcelain dish. The method was a tedious one and not sufficiently accurate. It is now customary to decompose the organic matter by boiling with strong nitric and sulphuric acid. It will be readily understood that the fumes of this acid are so corrosive that it is essential that the operation be conducted in a hood having an excellent draft. The right hand side of the hood in question was constructed especially for this purpose and is operated with complete satisfaction. The food is transferred to a round bottomed, pear shaped flask, the end of which is placed through a hole arranged for that purpose in a horizontal terra cotta pipe which leads to a terra cotta flue running directly through the roof and to a point ten feet above it. The ratio of the diameter of this flue to the size and number of holes for the ends of the flask is such that an excellent draft is afforded, and even with the window raised there is no odor whatever from the boiling acids in the room. The entire equipment of this room is arranged with a view of facilitating this one determination.

In brief the laboratory is in all respects modern and well calculated to bring about the results for which it is maintained.

Canners Will Convene at Baltimore

SEVENTH ANNUAL MEETING TO BE HELD FEBRUARY
2-6—AN APPRECIATION OF THE ASSOCIATION'S WORK

FROM the time when man first emerged from his most primitive state and began to practice the rudimentary arts of an elementary civilization, the question of how to preserve foods for future use has been a vital one.

Man first learned the necessity for storing away food in time of harvest to have it during the season of winter in order to keep himself from mere hunger. As he progressed he found it necessary to have food which would keep for journeys of exploration, expeditions of conquest and other similar purposes.

The success with which people in different ages have met this food preservation problem has to a very large degree determined the measure of progress in domestic achievement, in trade, science and art, as well as foreign commerce and expansion in every way they have enjoyed. A well-nurtured people makes usually a happy and influential nation.

In times of old the two chief methods of food preservation were to dry in the open air and preserve by use of salt. Dessication of meat products is practiced in fact by most primitive people of today, and also a limited number of fruits and vegetables and herbs are so preserved. It has remained for us of the present epoch, however, to achieve the largest success in methods of food preservation, and in this line of endeavor our own American nation probably leads the world.

There are various successful methods of preparing foods for future use in practice today, and preserving them by refrigeration and other treatments in their natural state. The "art preservative," if we may appropriate the phrase, however, which we wish to extoll at present is that of canning.

Among the largest users of preserved foods are now, and have been for centuries, the armies of the world. In fact it was the urgent need felt by the great Napoleon for wholesome food for his soldiers that led him to offer the well-known prize of 12,000 francs to the scientist who would solve the problem of food preservation. This generous stipend spurred the investigators to renewed efforts in this direction, and the prize was finally won by Francois Appert, who so perfected the canning process as to make it practical, and thus became the virtual father of our present canning industry. That the industry could in less than a century after the Appert discoveries reach its present enormous proportions could scarcely have been within the imagination of the most fertile brained of his time.

While fundamentally there has been but little change in the application of the principles worked out by Appert in present day canning factories, yet modern equipment has revolutionized the manner of carrying on the process in an up-to-date food cannery.

When the canning process was first practiced in a commercial way the list of products used was very limited. In our present day the list has become long and varied, and seems capable of still greater expansion, for we are constantly being apprised of additions to it. And, with all due appreciation of the old standbys in canned foods, some of these new ones are the most delicious and may in reality be termed the aristocrats among canned goods. Pineapple, ripe olives, tuna fish, etc., might be so designated.

In fact, as to the ripe olive product, canning solved a difficulty long faced by Pacific Coast olive growers, who found the lack of keeping quality of the ripe pickled fruit a serious drawback to the extension of the sale of the goods at distant points, and thus limited their profitable production. That other people than Californians can now enjoy the delicious ripe olive pickled has only been possible since it was discovered within the last few years that they could be successfully canned.

But if one were to attempt to enumerate the many triumphs of food preservation represented by the canning industry this tale would be long indeed. In view of this fact it is exceptionally deplorable that there should ever have arisen a persistent prejudice in the minds of all too many people against "canned goods" as a whole.

To dispel such unreasoning and unjust prejudice became a principal feature of the work of the National Canners'

Association when that organization was galvanized into new life a few years ago and established a one hundred per cent efficiency publicity bureau. The active education work which the National Canners' Association has done in behalf of the great canning industry has been of value that cannot be overestimated.

Carrying out the "aristocratic" idea, we may say that the National Canners' Association is the aristocrat of aristocrats among organizations of its character. Founded in a purely commercial spirit for the promotion of a strictly commercial cause and a specific industry, this association has yet carried on its work in a broad-gauged, single-minded, honest and effective way that has won the respect and admiration of all who are acquainted with its activities.

Without sensationalism or blare of trumpets the education of the public concerning the truth about canned foods has gone forward, quietly, persistently and effectively. False statements in the newspapers concerning canned foods have been "run to earth," investigated, unimpeachable evidence produced to prove their falsity, and denials of such canards which had been unthinkingly printed originally were given as conspicuous place in the newspapers as had been given the false story.

This was but one feature of the work, and was perhaps no more influential in putting the public right on the question of canned goods than were the frank advertisements placed in prominent periodicals which told consumers more of the truth about canned foods than they ever knew before.

The National Canners' Association has consistently used its influence to eliminate from the ranks of the representatives of the industry unscrupulous operators, from which no line of commercial endeavor is entirely free. The Association has also complied heartily with the provisions of the pure food laws of states and nation, and been generous upholders of the arms of food officials of the country in their efforts to honestly and efficiently enforce the law.

The purity and wholesomeness of canned foods have been officially endorsed, and it is recognized by all well informed people that no class of food products is prepared under more uniformly sanitary and appetizing surroundings than are canned foods as a whole.

The establishment of the National Canners' Laboratory at Washington, D. C., for scientific research in lines that will work to the benefit of the canning industry, is one of the most splendid achievements of this Association. This laboratory is in charge of Dr. W. D. Bigelow and Dr. A. W. Bitting and is being equipped with modern appliances which will enable its operators to work to the best possible advantage. In this laboratory canners' problems in the way of processing various foods will be solved, and the institution will without doubt prove of untold value to the entire canning industry.

The seventh annual convention of the National Canners' Association and its allied industries will be held in Baltimore, Md., February 2-6. An elaborate program has been arranged at which well-known speakers will discuss questions of vital importance to the trade and to the consuming public. In addition to featuring scientific research and publicity in the program, speakers will call special attention to the development and exploitation of foreign trade. A great deal of the work of the Association this year has prepared the necessary preliminaries, and thinking canners are beginning to realize that this branch of their business has been too long overlooked.

Among those who will make addresses the following may be mentioned: Mrs. Winifred Harper Cooley will speak on The Housewife's Debt to the Canned Food Industry. Dr. Carl L. Alsberg will make an address. Hon. William C. Redfield, Secretary of Commerce, will speak on the export trade in canned products; how to get it and how to keep it. Henry Burden will make the report of the committee on scientific research. Wm. C. Leitch will make the report for the committee on sanitation.

In addition to the purely business matters that will come before the convention, the management has arranged a series of social functions calculated to make the stay of the visitors pleasant.

Activities at the Federal Capital

SOME THINGS THAT ARE BEING DONE BY THE DEPARTMENT OF AGRICULTURE TO IMPROVE THE FOOD SUPPLY

Export Trade.

AT THE present time there is evident in this country an effort to increase export trade. This is an important subject which the manufacturers of food products feel requires special attention and development. The Interstate and Foreign Commerce Bureau of the Department of Commerce has in the past year sent a special agent into many of the foreign countries to investigate mainly the possibility of increasing export trade in canned foods.

Secretary Redfield has indicated splendid co-operation through the Department of Commerce. With the vast food resources of the United States, there are great possibilities for increasing the trade abroad. The magnitude of the canning industry alone can hardly be imagined.

One of the principal difficulties in the way of developing export trade is the tariffs of foreign countries, many of which are totally prohibitive. Through the Department of State at Washington great progress has already been made in bringing about a reduction of these duties. The Department of State stands today ready and willing to help the canners and it already has on file and in contemplation requests for reciprocity agreements which will make it possible for our canned products to become an important article of commerce with almost every civilized nation of the globe. Both the Department of State and the Department of Commerce are working in perfect harmony in the great effort that is now being made.

* * *

Sardine Investigation.

During the sardine season of 1913, the Bureau of Chemistry instituted a study and investigation of this industry in regard to the packing of sardines on the eastern coast of the United States, particularly in the state of Maine.

A well equipped chemical and bacteriological laboratory was installed at Eastport, Maine, and the laboratory work was conducted there, observations being made at the plants located in the vicinity of Lubec and Eastport. Inspections were also made of the plants located at more remote distances further down the coast.

Examinations of the fish used for packing were made at all stages of the process. Samples of fish were obtained fresh from the water; out of the boats which carry the fish from the fishing grounds to the factories, and samples were taken in the factories of all stages of the process.

The work was carried on with the best of co-operation on the part of the packers, who gladly turned over every facility at their disposal for the benefit of the representatives of the department. The results of the investigation are being whipped into shape for presentation, and there will be issued shortly some opinions and suggestions as a result of this season's observations, which will, when put into practice by all, result in the packing of a uniform quality of goods.

The packing of American sardines has heretofore been conducted on a basis of quantity, little or no attention being given to quality. A large majority of these goods sell for five cents a can, and this fact, together with the past quality and appearance of the goods when opened, has resulted in a well deserved skepticism towards them, from a certain class of consumers who ought to be provided with a cheap, good food which the sardine will supply.

As soon as American sardines are put on a quality basis, and maintained as a standard uniform product, and be meritorious as a five cent article, the far northeast section of the United States will be as noted for the packing of sardines as is the far northwestern section for the canning of salmon.

* * *

Egg Investigation.

The bacteriological laboratory is conducting an investigation on preserving eggs in sodium silicate and lime. Varying strengths of solutions are being used in this experiment upon grades of eggs known as "strictly fresh" and "commercial fresh." In strictly fresh grades, both fertile and non-fertile eggs are being used. The eggs are being stored in barn, cellar and office room, so that they will answer more closely

to conditions existing normally either in a barn or in a house. It is hoped from this investigation to gain a definite idea as to the best strength of solution that can be successfully used under normal conditions and to establish the fact as to the best grade of egg which can be successfully used. A year's preliminary work has already been conducted along this line, but the present investigation is going more fully into the subject.

Bacteriological and chemical examinations are being made at stated intervals to determine, if possible, changes in the eggs due to the preservation. At various intervals cooking experiments are being conducted with eggs thus preserved, to determine, if possible, any abnormal changes which might have come about in the eggs and their effect upon cakes, custards, etc.

At the conclusion of the experiment, it is hoped that the information secured will be of value to the general public and will be published as soon as possible.

* * *

Oyster Investigation.

The Bureau of Chemistry will in the near future conduct a thorough investigation of the oyster beds and sources of probable pollution in the Chesapeake Bay and its tributaries.

Wherever it will be possible to secure a consecutive series of samples, both chemical and bacteriological examinations will be made.

The first trip will proceed at an early date with two boats in charge of a representative of the bureau. Data will be obtained as to the existing conditions surrounding the various oyster beds, to establish sampling stations and to properly instruct collectors in the method of collecting samples.

The investigation will also extend to conditions in Jamaica Bay on Long Island, N. Y.

The Bureau of Chemistry has in this investigation the co-operation of the Bureau of Fisheries, which has furnished its steamer Fish Hawk, and the Bureau of Public Health Service, which is doing part of the bacteriological work.

* * *

Concentration of Fruit Juices.

An experiment is being conducted by the Bureau of Chemistry on the concentration of fruit juices by freezing. A great deal of attention is being devoted to the concentration of apple cider. Last fall a representative equipped with apparatus spent several months in the orchards of Hood River, Oregon, where he prepared a considerable amount of sweet cider which was frozen in ice cans and turned out as blocks of ice, the concentrated cider forming unfrozen in the center of the block. The ice was then finely ground and centrifugalized to extract the syrup from the ice.

The process reduces the weight of the product to one-fourth its original weight, thus greatly reducing the cost of transportation.

Fermentation occurs but very little, due to the process of concentration, and the juice can be shipped long distances without a preservative and without danger of the container bursting.

A pleasing feature of the experiment is that the original apple flavor is retained through the concentration and during the freezing. In fact the concentrated product is as stable as the apples themselves. If kept at a low temperature the fruit juice will retain its original flavor for prolonged periods.

CHEMISTS' CLUB OF NEW YORK.

The Percolator, bulletin of the Chemists' Club of New York, has a strong plea in it from President Charles F. McKenna for a renewal of still greater activity for the coming year. The club now holds a commanding position, but it is desired to increase its influence in its particular field. The president urges upon the members that they introduce new members, that they come often to the club house, that they enter into the spirit of the club's affairs. Already the club has upon its membership roll the names of chemists well known in their field, and the indications are that it will have the substantial growth it deserves. The total membership list at the present time is 1,149, as against 1,092 a year ago.

Recent Food Law Decisions

POWERS OF SECRETARIES TO MAKE RULES AND REGULATIONS SUSTAINED.

(Federal.) The so-called Antikamnia case, which has attracted considerable attention in the food and drug world, was decided by the United States Supreme Court on January 5th last. The Court sustains the power of the Secretaries of the Treasury, of Agriculture and of Commerce and Labor to "make uniform rules and regulations for carrying out the provisions" of the Federal food and drug law.

Regulation 28 (as amended by F. I. D. 112), which requires the proportion or quantity of certain specified drugs to be stated on the label, and requires, in addition to the name of the derivative drug the name of the substance from which it is derived as designated in the law, is held to be valid by the Court. The opinion, after pointing out the necessity of such regulations in the case of drugs, states: "The query then occurs, such being the words and purpose, if the quantity or proportion of the substances or any derivative or preparation of them must be stated, is it administrative of the law or additive to it to require by regulation that not only the name of the derivative or preparation be stated but from what substance derived or of what it is a preparation? It certainly cannot be said that the purpose of the law is not exactly fulfilled by the regulation. If it fulfills the purpose of the law it cannot be said to be an addition to the law, unless, indeed, it can be contended that the law provided a means for its defeat by the easy device of mysterious names."

The Court held that the tablets which were labeled as containing acetphenetidin and no acetanilid were misbranded, because the acetphenetidin was a derivative of acetanilid.—U. S. vs. The Antikamnia Chemical Co.

The full text of the opinion will be found elsewhere in this issue.

ADULTERATION APPLIES TO OYSTERS.

(Federal.) The ordinary use of the word "adulteration" implies an actual addition to the original substance, through human agency. But as used in the Food and Drug Act, the meaning is not restricted to an addition by the hand of man, and if the adulteration of filthy, decomposed or putrid substance has been added by nature and is contained in the article to be shipped, it is adulterated in the eyes of the law. Oysters, although shipped unopened as taken from the water, may come within the prohibition where, by reason of the condition of the waters in which they are grown, they contain harmful bacteria which renders them "filthy, decomposed or putrid." United States v. Sprague. 208 Fed. Rep. 419.

RIGHT TO THE USE OF TRADE NAMES.

(D. C.) The manufacturers of "Educator" crackers, biscuits, bread and breakfast cereals cannot oppose the registration of the word "educator" as applied only to salted, smoked or canned fish. Johnson Educator Food Co. v. Smith Co. 32 S. Ct. 522.

(D. C.) The word "cream" is registerable as a technical trade-mark for baking powder. International Food Co. v. Price Baking Powder Co. 37 App. Cases (D. C.) 137.

(D. C.) The holder of a registered trade-mark for all kinds of canned fish, who has used it only on canned salmon, is entitled to oppose the registration of a similar mark to be used on canned sardines. Non-user will not deprive the owner of the protection to which he is entitled against an infringer. In re John Braadland. 37 App. Cases (D. C.) 602.

(Wash.) Withdrawal of one of the stockholders from a corporation does not affect the right of the corporation to use the corporate trade-name, though such name was that of the outgoing stockholder. Wright Restaurant Co. v. Seattle Restaurant Co. 67 Wash. 690.

NET WEIGHT LAW UPHeld.

(Indiana.) The Supreme Court has just rendered an opinion reversing the dismissal of a case against a grocer who, by his clerk, sold a quantity of potatoes represented to be a peck, while the potatoes in fact weighed less than fifteen pounds, which, under the new net weights and measures act, is the correct weight for a peck of potatoes. The motion of the defendant to dismiss the case on the ground that he had in no manner been connected with the offense charged,

nor had any knowledge of the matter was sustained. In reversing the dismissal below, the court establishes the principle that dealers in food must know that no false weights or measures are used in their business, and failing to do so must suffer the penalty.—State of Indiana vs. McCaffrey.

RETAILER LIABLE FOR UNWHOLESOME FOOD

(Illinois.) A late opinion of the Appellate Court holds that in the sale of provisions for domestic use by a retail dealer, there is an implied warranty of their fitness and wholesomeness for consumption, and if the purchaser is made ill by reason of the food being poisonous or unwholesome the dealer is liable in damages. In this case the plaintiff was made sick from a partaking of a can of peas purchased of a retail grocer. This is the first case in Illinois when this rule has been applied to retail sales of food in sealed containers.—Chapman vs. Roggenkamp (decided Oct. 9, 1913).

STATUTE FORBIDDING SACCHARINE IN SOFT DRINKS UPHeld.

(Missouri.) A test case involving the use of saccharine in soft drinks was recently decided by the St. Louis Court of Criminal Correction. The prosecution was brought under the law of 1911, which prohibited the use of saccharin in soft drinks. A motion to quash the information and dismiss the case was overruled by the court, and the constitutionality of the law upheld.

The Act was alleged to be unconstitutional for the following reasons: (1st) The title of the act is insufficient, for the reason that there is no reference in the title of the Act to the provisions contained in section 3 of the Act, which makes it unlawful to use saccharine in the manufacture of non-alcoholic drinks, and such provisions are not germane to the subject mentioned in the title; (2nd) the Act prohibits the use of saccharine in soda water, although saccharine is a harmless and useful ingredient; (3rd) the Act is a special law and is class legislation, because it forbids the use of saccharine in non-alcoholic drinks without forbidding its use in alcoholic drinks.—State of Missouri vs. Empire Bottling Co.

POWER OF CITY TO REGULATE SALE OF MILK.

(N. Car.) Under its charter the city of Asheville, N. C., has power to pass ordinances providing for the inspection of all dairy herds located without the city, the milk from which is offered for sale in the city. The Supreme Court has held that under such power the city may also provide a license tax of one dollar per head for each cow inspected. As such tax is only sufficient to pay the expense attached to the inspection, it is not excessive. City of Asheville v. Nettles. 80 S. E. Rep. 236.

PROCESS AND RENOVATED BUTTER SYNONYMOUS.

(Wash.) "Renovated butter" and "process butter" are one and the same thing, and where a merchant orders "renovated butter" from the manufacturer and receives butter marked "process butter," he cannot rescind the contract of sale claiming the same as illegal under the state law requiring that such butter be labeled "renovated butter." Labeling butter "process butter" amounts to a compliance with the law. Armour & Co. v. Jessmer. 136 Pac. Rep. 689.

MUST DISCLOSE FORMULA OF FOOD.

(Wis.) In an action where a malted milk manufacturer sought to restrain defendants from selling other malted milk as its product, claiming that, when customers called for plaintiff's malted milk, other milk was substituted, the formula of plaintiff's milk is material because it is necessary to determine whether plaintiff's product was as represented in order to ascertain whether substitutes had been made. Horlick's Malted Milk Co. v. Spiegel Co. 144 N. W. Rep. 272.

BLEACHED FRUITS.

The following letter has been sent out by Commissioner E. F. Ladd of North Dakota to the trade:

Dear Sir:—I beg to call your attention to the fact that at

the present time considerable quantities of dried fruit, which are not permissible under the provisions of our law, are being shipped into the state of North Dakota.

Sulphur dioxide is prohibited in food products in North Dakota, and yet I have not strictly enforced this feature of the law where dried fruit contained only a slight amount of sulphur dioxide. The tentative standard of 350 mgs. per kilogram of fruit, as announced by the Bureau of Chemistry under the National Law, is certainly being exceeded at the present time in that some of the samples recently analyzed have been found to contain from 600 to 750 mgs., or more than double the standard referred to. Such dried fruit must be removed from the state.

The department does not recognize as legal, in the state, raisins, silver prunes or figs bleached with sulphur dioxide, as we have not been convinced that there is any necessity, in a good article, for the use of sulphur dioxide in either one of these products.

You are hereby notified that a strict compliance with these provisions is requested on the part of all who are handling dried fruit in this state.

(Signed)

E. F. LADD,
Food Commissioner.

CLAMS IN THE CAN.

The Food and Drugs Board in Food Inspection Decision No. 144 rules that in canned food products the can serves not only as a container, but also as an index of the quality of food therein, and should be as full of food as practicable for packing and processing. Where the addition of brine or water is necessary for proper preparation, the can should contain only sufficient liquid to fill the space between the meat and cover the product. Many canners of clams have asked the board to rule regarding the weight of clams necessary to comply with Decision No. 144. As a result of investigations the board states as its opinion that can which contain the weights of drained clam meat shown below will fulfill the requirements. These weights are "cut out" weights; i. e., the weight of meat left in the can after all free liquor has been drained off.

Type of Can.	Diameter	Height.	"Cut Out" Weights of Clams.
No. 1 Regular or oyster	2 11/16 ins.	4 ins.	5 ozs.
No. 1 Maine style	3 ins.	4 7/16 ins.	8 ozs.
No. 2 Short or picnic	3 3/8 ins.	4 ins.	8 1/2 ozs.
No. 2 Regular	3 3/8 ins.	4 9/16 ins.	10 ozs.

When cans of other sizes are used, they should contain proportional weights of meat.

It should be remembered, the Board states, that a loss of weight almost invariably occurs when clams are processed, and due allowance should be made for this loss in weighing the clams into the can. It may be said that the investigations made in the Bureau indicate that the loss in weight in processing varies from about 5 to 15 per cent, the average loss being about 10 per cent of the weight of clams placed in the cans. The weights of drained clam meat should not fall below those given above, or, if a variation occurs, it should be as often above as below the weights specified.

CONDENSED SKIMMED MILK.

Regulation 1. The sale of condensed skimmed milk is allowed in South Carolina, but it shall be unlawful to sell the said condensed skimmed milk except under the following regulations: In addition to the compliance with all existing laws, the said condensed skimmed milk to be sold in packages or containers, containing not less than one gallon, which packages or containers shall be hermetically sealed at the time of sale; also that at the stores, groceries, shops or places where such condensed skimmed milk is sold, a sign printed or painted in black letters on white background, and on which the letters are at least five (5) inches high and worded as follows must be displayed:

CONDENSED SKIMMED MILK SHOULD NOT BE
FED TO BABIES, CHILDREN OR INVALIDS.

IT IS LACKING IN FOOD VALUE.

Notice is further given, that under the provisions of the Act of the 5th of February, 1910, requiring the inspectors of this Department to enforce the Pure Food and Drug Law of the State, and the rules and regulations promulgated thereunder, the inspectors of this Department have been instructed to strictly enforce this regulation.

All manufacturers, jobbers, agents, merchants or other persons offering for sale any goods in violation of this section

are notified that on and after June 20 any stocks found in this State, offered for sale, will be dealt with according to law, as will also those offering such stocks for sale. This date is fixed with the view of allowing merchants ample time to dispose of stocks on hand.

E. J. WATSON, Commissioner of Agriculture, Commerce and Industries of South Carolina.

CREAM SHIPPING LAW.

The Minnesota cream shipping law, passed at the last session of the state legislature, attacked by the centralizing creameries, and which received a knockout blow, as then supposed, when an injunction against its enforcement was obtained, has again come to life and is in operation. Its constitutionality still remains unsettled.

Judge Catlin, of the District Court, who granted the injunction, has been reversed by the state's highest court, which denies the injunction and claims that the Milton Dairy Company has not sought the proper remedy.

SEIZURES UNDER THE LAW.

Upon allegations of adulteration or misbranding, a number of shipments of foodstuffs have been seized recently under the Food and Drugs Act on the recommendation of the Department of Agriculture. Trials of cases involving these shipments have not yet been had, but all the cases will shortly be brought before the courts, when it will be determined whether the government's charges will be justified:

Eight and one-half cases of tomato catsup, alleged to have been shipped by Lewis Packing Company, San Francisco, Cal., were seized December 19, 1913, at Portland, Ore. Adulteration was charged on the ground that the product consisted in whole or in part of a decomposed vegetable substance.

Part of another shipment of tomato catsup, consisting of two and one-half cases, alleged to have been shipped by Sunlit Fruit Company, Berkeley, Cal., was seized December 19, 1913, at Portland, Ore. Adulteration was charged because an examination of sample indicated that the product consisted of a partially decomposed vegetable substance.

Three hundred bags of cull beans, alleged to have been shipped by the Richmond Elevator Company, Port Huron, Mich., were seized at Baltimore, Md., on December 29, 1913. Adulteration is charged on the ground that the beans consisted in whole or in part of a decomposed vegetable substance.

Twenty-seven barrels of tomato catsup, alleged to have been shipped by Price & Lucas Cider & Vinegar Company, Louisville, Ky., were seized on December 19, 1913, at New Orleans, La. Adulteration was charged in that the product consisted of a partially decomposed vegetable substance.

One barrel of tomato catsup was alleged to be adulterated as it consisted in whole or in part of a filthy, decomposed putrid vegetable substance. Misbranding was also charged against the product in that the benzoate of soda contained therein was not declared. This seizure was made on December 19, 1913, at New Orleans. It was alleged further that the shipment in question was made by the American Pickle & Canning Company, of Wiggins, Mass.

At Philadelphia, Pa., on December 29, 1913, 94 bags of nutmegs were seized upon the charge that the same were adulterated in that they consisted in part of filthy decomposed vegetable matter.

Fifteen boxes of macaroni, alleged to have been shipped by H. Polinsky, Philadelphia, Pa., were seized at Baltimore, Md., on December 26, 1913. Misbranding was charged on the ground that the label implied foreign origin, whereas the goods were of domestic manufacture.

A carload of tomato pulp, alleged to have been shipped by Thomas Page, Albion, N. Y., was seized December 23, 1913, at Chicago, Ill. The government charged that the product was adulterated in that it consisted of a partially decomposed vegetable product.

RIGHT TO PASS ON CIRCULARS.

The government's right, under the pure-food law of 1906, to censor circulars enclosed in packages of medicine on the market is to be passed upon by the Supreme Court.

Department of Agriculture officials claim that the public is being deceived every day by exaggerated statements of the efficiency of nostrums to affect all kinds of marvelous cures. They claim that the pure-food law was enacted to wipe out this evil.

Manufacturers of medicines, however, contend that the pure-food law merely authorizes government officials to regulate statements on the labels of medicine and does not confer any authority over circulars inclosed in packages.

The dispute between the government and the manufacturers came to a sharp issue in Omaha recently when the government seized thirteen cases of patent medicine.

Each package contained the statement on an enclosed circular that "we know it has cured and that it will cure tuberculosis," and a further statement that it was "effective as a preventative of pneumonia."

The Federal District Court of Nebraska held that the medicine was misbranded under the pure-food laws. The manufacturer has appealed to the Supreme Court on the ground that the pure-food law deals with labels and not with circulars and, furthermore, that the law as interpreted by the Nebraska court is unconstitutional, in so far as the court held that the law sought to give the government a right to pass on opinions as to the curative effect of medicines.

THE OLD HEN AND COLD STORAGE.

The high price of hen fruit has aroused a nation's attention. The Housewives' League is boycotting the old hen's famous product to cut down the price. To understand the situation one must study the habits of the old hen.

In February the hens of the country begin their annual output of eggs for gin fizzes and other uses. By April the hen has her egg factory working on full time and eggs are plenty and cheap. At this time the surplus cheap eggs are placed in cold storage. As summer advances the old hen's egg factory begins to work on short time until finally, about October 1st, the factory is closed down for the winter months.

The old hen has a reason for this. Like every female, the old hen insists on having a new dress once a year. Unlike mankind, the old rooster has not been educated to furnish the old hen a new dress, so she has to do it herself. From October 1 to January 1 the old hen uses all the angleworms, bugs and vegetables from the neighbor's garden, which went into eggs in the springtime, to make her a new dress for the Easter holidays. As a result, the price of eggs goes out of sight.

Enter the villain of the play—the cold storage man.

Now cold storage has its uses and its abuses. As an agent in transferring our surplus of food products from times of plenty to times of scarcity the cold storage man is a benefactor to the human race. But when the time of scarcity arrives and he refuses to put his products on the market at a reasonable profit, but holds them off and, by reason of his monopoly, exacts exorbitant prices from the consumer, cold storage becomes an abuse.

Laws should be passed limiting the time that any product should be in cold storage. Pennsylvania has such a law. Under its provisions, cold storage men are compelled to market April stored eggs in December at the latest, unless the state dairy and food commissioner decides otherwise. Cold storage men in that state cannot form a monopoly and mulct the consumer, as the dairy and food commissioner can force their product upon the market.

The writer endeavored to have the Michigan legislature pass a similar law at its last session. It was defeated in the House by the votes of the following members: Representatives Bierd, Burke, Burns, Catlin, Chamberlain, Clark, Crapser, Croll, Dunn, Edwards, Farmer, Flowers, Follett, Foote, Griggs, Henry, Hicks, Hinkley, Holcomb, Jakway, Jensen, Jerome, Koehler, McMillan, McNitt, Middleton, Moore, Morgan, Murphy, Nank, Neller, Odell, Peckham, Richardson, Schaeffer, Skeels, Stevens, Warner, Wilcox and Wood. Had this law been passed, any cold storage egg monopoly could have been smashed by this department.

It is to be hoped that public sentiment may be aroused so that the next session of the legislature will see a law enacted to prevent abuses in the cold storing of food products. JAMES W. HELME, Michigan State Dairy and Food Commissioner.

DATES ON CANNED GOODS.

Resolutions demanding that Western senators and representatives work against the proposed amendment of the national pure food statutes relating to the stamping of canned goods with the date of their manufacture, were adopted by the Missouri Valley Cannery Association.

"There is no necessity for such an amendment," said one of the speakers who discussed the resolution. "If corn, peas, tomatoes or like products are properly canned they will keep indefinitely. They are just as good next year as this. If we have to stamp the date of manufacture upon the cans, we simply kill the sale of any surplus product that we may have left over. It will be a very heavy and unjust hardship upon the cannery."

The association voted to hold its next annual meeting in Springfield, Mo. That convention will be called for some time during the latter part of December or the early part of January.

R. B. Gillette, of Marionville, Mo., was re-elected president and L. I. Moore, of Oregon, Mo., secretary. J. P. Harris, of Prairie Grove, was elected first vice-president.

BUCKWHEAT CAKES AND MAPLE SYRUP.

When our forefathers settled Michigan, there were two things that were both convenient and cheap. The fertile virgin soil needed some crop that was a voracious feeder to subdue it and nothing quite filled the bill in this respect like buckwheat.

Abundant forests of hard maple were on every hand to tap and an abundance of cheap fuel made maple syrup obtained from maple sap the cheapest sugar to apply to cakes made from the buckwheat flour.

The present generation thus inherited a taste for those delicious buckwheat cakes and maple syrup from our ancestors.

But times have changed. The maple forests have been largely cut down for lumber, fuel is scarce and high-priced and more profitable crops have superseded buckwheat.

As a result, pure buckwheat flour and maple syrup have become scarce and high. Numerous imitations have sprung up, and if the consumer would revel in the old-time luxury of buckwheat cakes and maple syrup, he must be on his guard.

Fortunately, Michigan food laws still make possible the obtainance of this delicacy of our forefathers.

Buckwheat flour is generally adulterated with wheat flour, but if so adulterated the sack must be labeled "Buckwheat Flour Compound." If so labeled the sack may contain only 10 per cent buckwheat. Look sharp for the sack that has printed on it the words "Buckwheat Flour" in large blue or red letters and the word "compound" is printed below in small letters with an inconspicuous color. If a sack reads "Pure Buckwheat Flour" without the word "compound," it is probably pure. You can mix in common flour to suit yourself much cheaper than you can buy the compound ready mixed.

The law requires every container of syrup to be labeled with the percentage of cane and maple therein. If it is labeled "Maple Syrup" without these percentages, it is probably pure maple. Many imitations are on the market; they consist generally of pure cane syrup flavored and colored to imitate maple syrup. If you want this cheap syrup, you can make it yourself cheaper than you can buy it. The following letter recently received at this office will tell you how. The spelling is original with the writer:

Dear Sir:

As I am about to make a formley to take place of maple syrup, and make it for sale, I have got a formley that you cannot tell from this pure maple. Now then what I want to know is this what have I got to do in order to keep getting any truly Or Infringen on the law

Formley.

7 lbs. of granulated shugar

2 Quarts of boild watter

1 Oz. of Henderson, Extract of maple.

Yours truly,

It is not possible to obtain any "extract" or "flavor" from maple sugar or syrup. All so called "maple extracts" are made from various drugs or by boiling up corn cobs and hickory bark. If you want Pure Buckwheat Cakes and Maple Syrup, watch the labels on the sack and bottles.

JAMES W. HELME.

Michigan State Dairy & Food Commissioner.

An estimate from authoritative sources places the actual cash value of the British Columbia salmon pack for the 1913 season at \$7,619,743, being the return from the estimated average price per case, according to quality and species of fish.

STATE PEDDLES ITS OYSTERS.

The state of Washington went into the oyster business, selling in the open market for commercial purposes, 600 sacks of bivalves at \$8.90 a sack.

A state commission is engaged in the conservation of the oyster supply, providing "seed" oysters for stocking Washington waters. These are sold for 25 cents a sack—a price fixed by law.

So prolific has the yield of the state's seed beds become that competition with private dealers is necessary to dispose of oversupply.

Albumen in Baking Powder

RULINGS BY FEDERAL GOVERNMENT AND SEVERAL STATES

FEDERAL RULINGS OF ALBUMEN IN BAKING POWDER.

United States Department of Agriculture,
Board of Food and Drug Inspection.
Washington, D. C.

November 12, 1913.

Geo. P. McCabe, Esq., Attorney for Jaques Manufacturing Co.,
610 Harris Trust Building, Chicago, Ill.

Sir: In reference to the question of the addition of egg albumen, or dried whites of egg, to baking powder, you are informed that the Board of Food and Drug Inspection submitted to the solicitor the following statement, accompanied by all briefs and evidence in its possession:

"The evidence appears to show beyond doubt that the addition of egg albumen to baking powders, in a manner ordinarily employed, does not add to or detract from the value of a given baking powder, when judged by baking tests or the usual chemical test for available carbon dioxide. The presence of albumen in one powder and not in another gives the manufacturer of the former an advantage over the latter only when judged by the so-called 'beaker' or so-called 'water-glass' test. The use of albumen appears to be very old, and apparently it has been used simply for the purpose of giving a peculiar effect when the baking powder is tested by the 'water-glass' test. A number of manufacturers using albumen admit that they are using it and have used it simply because certain other manufacturers have used it and getting advantage by their advertisements and demonstrators. The fraud or deception in the matter seems to be simply this: That a certain test, known as the 'water-glass' test has been falsely represented by advertisements and demonstrators, as to its value and meaning. It is these false claims as to the value of this particular test that have undoubtedly led states to prohibit the sale of these powders within their territory."

The solicitor advised that the facts as certified to him did not constitute an adulteration within the meaning of the Food and Drugs Act and that while the question of misbranding was discussed in the briefs submitted, this question was not raised by the Board's certification, and furthermore he deemed it useless to pass upon this question as, according to his understanding, the users of albumen are willing to adopt whatever requirements the Department may make in this respect. His opinion is in part as follows:

"The sole ground of complaint, on the facts as set forth in your memorandum and on the testimony which I have examined, is that a so-called 'beaker' or 'water-glass' test has been used in advertisements and demonstrations for the professed purpose of disclosing the comparative values of baking powders containing egg albumen and of baking powders which do not contain egg albumen. It is clear that this test does not truly ascertain the relative qualities of the two classes of baking powders. The claim that it does is, therefore, improper."

"The facts certified in your memorandum do not disclose 'inferiority' of baking powders containing egg albumen; much less do they show a 'concealment' of inferiority by means of the addition of egg albumen. All that is shown is that users of the 'water-glass' test misrepresent the capacity or purpose of that test. The test itself does not in fact, as claimed by some, establish the 'inferiority' of baking powders not containing egg albumen to baking powders containing egg albumen."

The Board intended to submit to the solicitor the question of misbranding but neglected to submit labels. Under the circumstances the solicitor naturally did not render an opinion on the question, and inasmuch as an important principle is involved, the board, before passing on the question of misbranding, wishes again to consult the solicitor. The question has been submitted whether the statement on the label of whites of eggs or egg albumen as one of the ingredients of a baking powder amounts to misbranding when the baking powder contains the small amount shown by the investigations by the Bureau of Chemistry and the evidence submitted to it. The question has been accompanied by a copy of label used by the Calumet Baking Powder Company as typical of

the labels used for this class of products. When the solicitor's advice is received the board will advise you of its conclusions as respects misbranding.

If any publicity be given this letter, it is requested that the letter be stated in full.

A letter identical with this one has been addressed to John Barton Payne, Esq., attorney for Calumet Baking Powder Company.

Respectfully,

C. L. ALSBERG, Chairman.

United States Department of Agriculture,
Board of Food and Drug Inspection.

December 13, 1913.

Calumet Baking Powder Company,
Chicago, Ill.

Gentlemen: Referring to your request for the board's opinion as to whether or not the revised form of label submitted is satisfactory, regarding the method of declaring the presence of dried egg albumen, you are advised that the board does not consider it satisfactory.

In view of the fact that the use of egg albumen in baking powders heretofore resulted in extensive misrepresentations, both as to strength and the value of the powders that contain it, as asserted by the water beaker test, the board holds that the label should clearly show to the consumer at least two things: First, the true purpose or purposes for which the dried egg albumen is added; and second, the relative amount of dried egg albumen present.

Since you have expressed the desire to adopt a label which shall be beyond possibility of criticism, and since it is the custom of the board not to confine its criticism to the minimum requirements under the law, the board begs to offer for your further consideration the advisability of stating in addition that the use of dried egg albumen is not a substitute for eggs as ordinarily used in baking, or for the sake of its leavening power.

The board is not accustomed to make more concrete suggestions concerning the wording of labels, since to do so might be construed as an endorsement of the products under the labels in question.

Respectfully,

C. L. ALSBERG, Chairman.

United States Department of Agriculture,
Bureau of Chemistry.

Washington, D. C., Jan. 17, 1914.

Board of Food and Drug Inspection, in reply, refer to ASM-LJE.

Calumet Baking Powder Company,
Chicago, Ill.

Gentlemen: The board is in receipt of an amended label drawn to meet the previous objections raised by this board and reading as follows:

"This Baking Powder is composed of the following ingredients and none other: Soda, Acid Phosphate, Corn Starch, Alum, and 15/100 of 1 per cent of dried white of egg."

"The dried white of egg furnishes a means of estimating the available gas, and is not a substitute for eggs in cooking."

Under the Food and Drugs Act, June 30, 1906 (34 Stat., 768), the board has no authority to approve labels but it has no objection to offer to the amended label when applied to a baking powder consisting of the ingredients as stated, provided the dried white of egg is used solely for the purpose of estimating the available gas in the baking powder.

The department has previously decided that the addition of this amount of pure dried egg albumen to baking powder does not constitute adulteration within the meaning of the Act.

Respectfully,

C. L. ALSBERG, Chairman.

United States Department of Agriculture,
Board of Food and Drug Inspection.

January 18, 1914.

Honorable James H. Wallis, Department of Food, Drug and Hotel Inspection, Boise, Idaho.

Dear Sir: I am in receipt of your letter of January 3 in

regard to the decision of this department upon the question of the use of egg albumen in baking powder.

As you were informed in our letter of December 23, 1913, the Department of Agriculture expressed an opinion that the addition of egg albumen to baking powder in the manner used is not adulteration within the meaning of the Federal Act. If the addition of egg albumen does not constitute adulteration, it must be possible for the manufacturer to avoid misbranding by devising a correct label. It has never been the policy nor considered within the authority of this board to approve labels nor to suggest the exact wording of labels under consideration for the reason that a decision of this character must in each instance be based upon the particular label in question, together with the facts surrounding its use, nor could it be more general in character than outlined in our letter to the Calumet Baking Powder Company as quoted.

An opinion has this day been rendered the Calumet Baking Powder Company upon an amended label submitted by them. A copy of this letter is enclosed.

The Federal law differs somewhat in its wording from the law of your State and any opinion which we may render must be limited to the Federal Act.

Respectfully,
C. L. ALSBERG, Chairman.

United States Department of Agriculture,
Board of Food and Drug Inspection.

January 18, 1914.

Hon. J. S. Abbott, Food and Drug Commissioner,
Austin, Texas.

My Dear Sir: Receipt is acknowledged by the Board of Food and Drug Inspection of your letter of January 6, 1914, requesting the further opinion of the board regarding the true purpose of the use of egg albumen in baking powder.

This also appears to us the most important point in the whole controversy.

There appears sufficient evidence that in the past the presence of egg albumen has led to deceptive methods of advertising as to the relative strength of the powders containing it with regard to other competitive baking powders. The representatives of the Calumet Baking Powder Company have verbally disclaimed its use for this purpose and assure us that such practices, if they occurred, will be discontinued.

It is very apparent that this is wholly a question of fact. If a label is used stating that the purpose of the egg albumen is to enable them to determine the amount of gas in the baking powder and it can be shown that it is for another purpose, it is probable that the false claim as to its purpose would be a false and misleading statement regarding the contents and ingredients of the package.

In accordance with our telegram of this date there is enclosed herewith for your information copy of an opinion given the Calumet Baking Powder Company this day upon an amended label submitted by them.

Respectfully,
C. L. ALSBERG, Chairman.

TEXAS RULINGS ON ALBUMEN IN BAKING POWDER.

January 6, 1914.

RULING NO. 28.

ALBUMEN IN BAKING POWDER.

To Dealers in Food Products:

In our Ruling No. 26, under date of June 30, 1913, against the use of albumen, egg albumen, or white of egg in baking powders, we made the following statement:

"Albumen is not a necessary constituent of baking powder. Its use in baking powder is to produce a foam when water is added to it for the purpose of deceiving the consumer with respect to its quality. In this respect, albumen serves a fraudulent purpose."

Some manufacturers of albumen baking powders immediately protested against this ruling, and presented evidence intended to convince us that albumen actually adds to the baking efficiency of such baking powders. They informed us that the question was before the U. S. Department of Agriculture and asked for a suspension of our ruling until an opinion could be had from them. Our Ruling No. 27, under date of July 26, 1913, was therefore made, suspending Ruling No. 26 until January 1, 1914.

It is not a violation of any confidence to say that one manufacturer using albumen frankly told us he used albumen for purposes charged in our Ruling No. 26. Another manufacturer who wants to continue to use albumen has retreated

from the position originally held by him; viz, that albumen actually adds to the baking value of a baking powder, and now declares that the true purpose of albumen is used to enable his company, and others who desire to do so, to determine the amount of gas such baking powder contains.

The argument therefore for albumen in baking powder has been greatly weakened, rather than strengthened, by its friends; which fact strengthens our original opinion expressed in Ruling No. 26.

Our first statement, therefore, that albumen is not a necessary constituent of baking powder, is accepted by all. It does not make the baking powder better; it does not make it worse; it does not preserve it as a filler like starch does; it does not color it. What then is it for?

The Food and Drug Board of the U. S. Department of Agriculture has not given us an opinion upon this question. This department is of the opinion, based upon previous personal observations of water glass tests, that it is used to mislead and to deceive the consumer regarding the relative strength and quality of baking powders.

The very caption of the Texas Food and Drug Law begins with—

"An Act to prohibit and to prevent adulteration, fraud and deception and misbranding," etc.

This department therefore still believes that the use of albumen in baking powders is a violation of the Texas Food and Drug Law, and we hereby renew our original Ruling No. 26 against such a use of it.

Respectfully,
J. S. ABBOTT,
Food and Drug Commissioner.

January 7, 1914.

SUPPLEMENTAL TO RULING NO. 28.

ALBUMEN IN BAKING POWDER.

To Dealers in Food Products:

No action against albumen baking powders now in possession of wholesale and retail dealers and in transit to such dealers will be taken by this department. This is a repetition of a prior statement of this department.

Manufacturers of such baking powders will be given ample time, say until February 1, 1914, in which to adjust their business and their labels to the ruling.

Respectfully,
J. S. ABBOTT,
Food and Drug Commissioner.

Austin, Texas, January 22, 1914.

SUPPLEMENTAL TO RULING NO. 28.

ALBUMEN IN BAKING POWDERS.

To Dealers in Food Products:

This is to advise you that on January 7, 1914, this department gave out a ruling advising against the sale of baking powder containing egg albumen, which order was to become effective February 1, 1914.

Since the promulgation of this order, suit has been instituted in the Federal Court at Austin, Texas, by the manufacturers of baking powders using albumen, in which suit an injunction is asked restraining this department from enforcing its ruling No. 28. The attorney general of the state and counsel for the baking powder manufacturers have agreed that pending the action of the court upon the case, Ruling No. 28 shall be suspended. Now, therefore, in accordance with the agreement above mentioned, this department suspends Ruling No. 28 until the Federal Court passes upon the application for injunction now pending. Due notice of the action of the court will be made to the dealers.

J. S. ABBOTT,
Food and Drug Commissioner.

OPINION ATTORNEY GENERAL OF TEXAS.

"The Pure Food Law passed in 1911 construed the addition of egg albumen to baking powder to constitute a violation of Sections 1 and 3 of said act and to constitute both adulteration and misbranding. It is therefore illegal and should be discontinued."

Austin, Texas, January 15, 1914.

Hon. J. S. Abbott, Food and Drug Commissioner, Capitol.

Dear Sir: In your recent communication to this department you desire to be advised as to whether or not albumen, egg albumen or white of egg in baking powders is a violation of the State Pure Food and Drug Act passed in 1911, being Chapter 47, Sessions Acts of 1911. For the information of this department you advise us that "albumen is not a necessary constituent of baking powder. Its use in the baking powder is to produce a foam when water is added to it for

the purpose of deceiving the customer with respect to its quality."

As we understand the statement, the use of albumen, or the dried white of eggs, in the manufacture of baking powder adds nothing to its value as a food and does not in any manner increase its efficiency as an ingredient of food, neither does it take from the value of the ingredient from which food is made with the exception that it is in effect the addition of a harmless substance. It appears that the object in adding egg albumen to baking powder is that on account of its adhesive nature it arrests the gas and produces a foam giving the general appearance to the substance when water is added to it of having more leaven than other brands of baking powders which contain no albumen. From an advertisement attached to your inquiry we observe that on baking powder concern produces a demonstration by the use of three kinds of baking powder, one of which contains albumen, the other two containing no albumen. Pictures are made of the three glasses, a small quantity of baking powder is placed in each glass to which water is added. The two glass containing the baking powder with no albumen is shown to effervesce very little, while that containing the albumen is shown to be protruding from the top of the glass. As we understand it, the two brands of baking powder in which no albumen is added is in every particular just as high grade and efficient as the one containing the albumen, but the customer is persuaded to believe that there is some hidden virtue in the baking powder that contains the albumen, for the reason that when water is added to it a foam is produced.

Upon this statement of facts, assuming that it is true that the addition of albumen serves only the purpose of deceiving the customer into the belief that he is buying a better and more superior article, we advise you that it is the opinion of this department that the use of albumen in this manner in baking powder is a violation of the Texas Pure Food Law passed in 1911.

We call special attention to the caption of this act which declares among other things that is "An act to prohibit and prevent the adulteration, fraud and deception in the manufacture of and sale of articles of food and drugs." Section 2 of said act declares that "for the purpose of this act an article shall be deemed to be adulterated [in case of food] if any substance has been mixed and packed with it so as to reduce or lower or injuriously affect its quality or strength."

Since albumen adds nothing to the efficiency or effectiveness of baking powder we conclude that when added to the baking powder it necessarily has the effect of reducing and lowering its quality of strength. Suppose that baking powder should contain one-half albumen. It would have one-half the strength of other baking powder which contained no albumen. Its efficiency and effectiveness would by the addition of albumen be reduced one-half should it contain such a large per cent of albumen as one-half. On the same line of reasoning, every particle of albumen that is added to the baking powder reduces its quality and strength in the same proportion as the quantity of albumen so added.

Section 2 of subdivision C of said Act declares that "if any substance has been substituted wholly or in part for the article, it will be deemed to be adulterated." We conclude that when albumen is added to baking powder, which is otherwise complete, the addition of the albumen is a substitution of the albumen for a corresponding amount of the baking powder.

To illustrate, if 50 per cent of albumen was added to the baking powder, a can of baking powder containing this per cent of albumen would have only 50 per cent of efficiency, and the effect of the addition of the albumen would be to substitute the albumen for the baking powder which would come directly under the provisions and under the inhibition of Section 2.

The baking powder will be considered adulterated "if any valuable constituent of the article has been wholly or in part abstracted, or if the product be below the standard of quality, strength or purity represented to the purchaser or consumer." We conclude that where the albumen is added to the baking powder that it renders the baking powder below that standard of quality, strength or purity represented to the purchaser or consumer. In other words, when the albumen is added the consumer is made to believe that the baking powder so containing such albumen is of greater strength, purity and efficiency than that baking powder which does not contain albumen, and clearly it seems in our opinion that the addition of the albumen renders the baking powder when considered by quantity, less efficient and below that standard of quality, strength or purity represented to the purchaser or consumer.

The purchaser or consumer gets less for his money when he is led to believe he gets more than when he buys like quantities of other baking powder which contains no albumen.

Section 3 of said act provides that the term "misbranded" shall apply to articles of food or articles which enter into the composition of food, the package or label of which shall bear any statement, design or device regarding such article or the ingredients or substances contained therein which shall be false or misleading in any particular." It is our opinion that brands of baking powder containing albumen are misbranded under the provisions of Section 3 of said act.

Section 3 is as follows: "That the term misbranded, as used herein, shall apply to all drugs or other articles of food or articles which enter into the composition of food, the package or label of which shall bear any statement, design or device regarding such article or the ingredients or substances contained therein which shall be false or misleading in any particular." The addition of albumen for the purpose of making the impression upon the customer or consumer that the baking powder contains more efficiency, when as a matter of fact it contains less efficiency than it would contain were the albumen absent and its place taken with other ingredients of the baking powder, serves but one purpose and that is to produce a false and misleading statement. We think that there can be no doubt that the use of albumen in baking powder, together with the demonstration which is customarily made and the advertisements which usually accompany the baking powder, constitutes a statement, design and device regarding the baking powder and its ingredients or substance or substances contained therein, which are both false and misleading, and therefore constitutes misbranding within the definition laid down in Section 3 of said Act.

We therefore advise you, assuming that you are correct in your statement as to the effect of albumen when added to baking powder, that its addition to baking powder constitutes both adulteration and misbranding as above set out, and that its sale is in violation of said law and should be discontinued.

Very sincerely yours,

W. A. KEELING,

Assistant Attorney General.

This opinion has been passed upon, approved by this department in executive session, and is now ordered recorded.

B. F. LOONEY,

Attorney General.

ALBUMEN IN BAKING POWDER.

Opinion of S. J. Crumbine, Secretary Kansas State Board of Health.

(Printed in Bulletin No. 12. December 12, 1913, Kansas State Board of Health.)

FALSE ADVERTISING.

It is becoming increasingly evident that the enactment and fairly efficient enforcement of the national and state food and drugs law has not secured to dealers and consumers freedom from fraud and deception in food and drug products.

False and misleading statements, designs and devices that appear in any place than upon the label attached to the package, or the false and deceptive methods used by designing agents, salesmen or manufacturers, can not be reached or prevented by resort to the food and drugs law, and thus in many instances the public continues to suffer by reason of gross misrepresentation of one kind or another. Take, for illustration, the false, extravagant, and, in their final effect, often harmful claims of many of the fake nostrums and appliances which appear in glaring advertisements in newspapers, circulars or pamphlets, or given by word of mouth by an agent to a prospective customer—in such cases the food and drugs law is powerless to protect the purchaser.

In the "Book of Instruction for Users of the Perfected Oxygenor King" we read that this wonderful appliance is recommended to treat 134 diseases named, including appendicitis and barrenness, cerebrospinal meningitis and change of life, consumption and creeping palsy, dropsy and dysmenorrhœa, enlargement of the womb and epilepsy, felons and fits, goiter and gonorrhœa, mumps and difficult menstruation, sour stomach and softening of the brain, tapeworm and whooping cough, and so on to the end of the nauseous list, and all for the small sum of \$25 or \$35, according to the terms of the traveling agent.

It seems incredible that fairly intelligent people will be so easily deluded by such self-evident frauds, for the theory advanced by the promoters is that ozone (a gas) "is designed to flood the system," although this gas is supposed to be conveyed through solid copper wires. An inquirer recently

wrote in in a way that indicated he had scented the rodent, for he said: "It seems that the place for this appliance is on the 25-cent counter." The reply commended him on his smelling ability, but suggested his price was too high, the 5-cent counter being nearer its true value.

Another illustration of fraudulent advertising is that of the methods of a certain baking-powder company whose agents and demonstrators are instructed to make what is called "the water-glass tests." Several baking powders are used, a small quantity of each being placed in a glass and water added. The baking powder of this particular manufacture contains a small quantity of albumen, and this powder containing the albumen foams to the top of the glass, the dissolved albumen making a more or less viscous liquid, which retains the gas bubbles; the other powders, which do not contain albumen, simply foam up, the gas escaping into the air. The spectator sees the powder containing the albumen foam up to the top or over the top of the glass, while the other powders have but few bubbles; the opportunity is thus presented to the demonstrator or agent to represent to the housewife or prospective customer that the leavening power of the baking powder showing the glass full of bubbles is very much greater than that of the powders which do not make this showing, and thus a fraud is practiced, in that the albumen powder is made to appear better than it really is, or, conversely, the other powders are made to appear worse than they really are.

This test is deceptive, and is no indication of the rising power of the respective baking powders. Such a demonstration is no test of strength, and is no reason why the consumer should pay more for baking powder which foams, and is retained in the glass because of the albumen content, than is paid for powder of the same leavening power which contains no albumen, and will, therefore, not foam and retain the bubbles when the water is added to it. The amount of albumen which is added to the baking powder is only a fraction of one per cent, and its cost is negligible.

Patent medicines, food products and baking powders should be sold for exactly what they are, and false representations of any kind are frauds upon the purchaser. It is for these reasons that a false-advertising law is imperatively necessary as a supplement to the food and drugs laws.

DRIED FRUITS ECONOMICAL DIET.

Fresh fruits are divided into two classes, "flavor fruits" and "food fruits," according as they are valued for their flavor or as a food, according to the Office of Nutrition Investigations for the United States Department of Agriculture. Those that are 80 per cent or more water fall under the first classification (apples, pears, peaches, and most of our common fruits), while those containing less fall under the latter (bananas, grapes, and figs). The food value of a pound of dried fruit is, of course, much greater than that of a pound of fresh fruit. A pound of the latter will yield an average of about 6 ounces dried, but the amount of water in the original fruit is no guide to the food value of the dried product.

The main change which takes place during drying is the loss of water, but other changes also occur. Very often the right degree of heat produces changes not unlike those which occur during the natural ripening on the plant.

In some cases the crude fiber which forms the basis of the plant structure is reduced in amount or softened. Much of the starch is changed to some form of sugar. The change in flavor is due partly to the proportionate increase of sugar from loss of water and to absolute increase from chemical changes.

To determine which of two fruits is more economical, not only must the cost per pound be known, but the amount of bodily fuel that makes for energy and protein (muscle-building material) a pound of each would supply. One must also consider what expense is required to prepare each for the table. Grapes commonly cost less a pound than raisins, but a given sum spent for grapes will buy a smaller amount of nutritive material, since the proportion of water is much higher than in the raisins.

On the other hand, low-priced fresh fruit is sometimes as economical as a somewhat cheaper dried fruit, since the latter would require sugar and fuel to make it ready for the table.

Attention should also be directed to the extent of inedible material.

Numerous studies made of nutritive values by the Office of Experiment Stations have shown that dried fruits may be termed an economical article of diet. Fruit products in general contain little protein, but as sources of energy, derived

almost entirely from their sugar, dried fruits are decidedly cheaper than meats and compare favorably with dairy products. They are, however, more expensive than cereals and starchy vegetables, such as dried beans and potatoes.

Under no circumstances should fresh and dried fruits be thought a luxury, since they supply the needed nutritive material as an integral part of the diet, besides adding to the attractiveness of the daily fare. If they are to be eaten raw, brands made and marketed in a cleanly way should be obtained.

The amount of dried fruit produced in the United States increased 575 per cent between 1899 and 1909. California produces more than four-fifths of the yearly output. According to a very rough estimate, each person in this country consumes on an average 5 or 6 pounds of dried fruit a year.

The value of the product rose from between four and five millions to over twenty-one millions in 10 years. The average wholesale price, however, has not advanced with the increased demand; on the contrary, it has dropped from about 5½ to about 4½ cents per pound.

Dried fruits are especially useful when the supply of fresh fruits is limited or where storage space for fresh fruits is lacking. Besides being used alone, they may be mixed into cakes, puddings, confectionery, and other dishes. They afford a nutritious and economical way of securing a variety of diet, which is often overlooked by the housewife.

CANNED-MILK IN INDIA.

The awakening popular recognition of the unsatisfactory and dangerous ordinary natural milk supplies in India, says Consul H. D. Baker, has recently been causing a large increase in importation of foreign condensed and sterilized milk. The imports of such milk (under the heading of condensed and preserved, including milk cream) amounted during 1911-12 to 11,276,076 pounds, valued at \$1,049,500. The United Kingdom supplied during that year 7,345,326 pounds, the Netherlands, 1,862,953 pounds, Germany 998,219 pounds, Switzerland 339,196 pounds, France 239,156 pounds, Austria-Hungary 160,317 pounds, Norway 144,745 pounds, Italy 121,276 pounds, the Atlantic coast of the United States 28,514 pounds, and the Pacific coast of the United States 3,085 pounds. In the fiscal year 1912-13 the imports totaled 12,819,910 pounds, valued at \$1,195,980, but data as to countries of origin are not now available.

The imports more recently would probably show very large increases over these amounts, especially as one well-known company has lately been undertaking the most extensive advertising campaign in India of any foreign company engaged in business in this Empire. Every two or three days during the last three or four months the leading newspapers of India have been running full or half page advertisements of its "Milkmaid" sterilized natural milk. It is said that in response to this advertising campaign the company's sales in India are now two and one-half times what they were six months ago and are still increasing. Shipments of this milk are being received in India in tins, fresh every two weeks.

This company has also made arrangements with cinematograph shows in India to use films portraying the insanitary method of dairying in India and also the adulterations which take place, as compared with the wholesome production of milk in such countries as Switzerland and Norway. Furthermore, to stimulate interest in its sales, the company puts in occasional tins 100-rupee notes (about \$32.50 each) and extensively advertises the chance of finding such hidden treasure. Tins of this sterilized natural milk are sold at Bombay, Madras, and Karachi, the 19-ounce size for about 90 cents per dozen, or 8 cents each, and the 7½-ounce size for 48 cents per dozen tins, or 4 cents each. In country districts the price is one-half to 1 cent higher per can.

OHIO MILK BULLETIN.

Commissioner S. E. Strode of Ohio has issued a very clever bulletin on the milk question. The matter is presented in the form of queries and answers. That is to say, each particular feature of the milk problem is opened with a query, to which the true answer is presented. In this rather unique form the matter is set forth clearly in all its detail.

Joseph S. Tyree, of Washington, D. C., was charged with selling a quantity of lemon extract alleged to be adulterated, in that a valuable constituent thereof, lemon oil, had been left out. The defendant entered a plea of guilty and the court imposed a fine of \$5.

Important Supreme Court Decision

POWER OF THE THREE SECRETARIES TO MAKE RULES AND REGULATIONS SUSTAINED

SUPREME COURT OF THE UNITED STATES.
No. 118—October Term, 1913.

The United States of America, Plaintiff, in Error and Appellant, vs. The Antikamnia Chemical Company.

In error to and appeal from the Court of Appeals of the District of Columbia.

(January 5, 1914.)

Mr. Justice McKenna delivered the opinion of the Court.

Libel for the seizure and condemnation of certain drugs under the provisions of the Act of Congress of June 30, 1906, commonly known as the Food & Drugs Act, 34 Stat. 768.

The libel alleges that the drugs are in the possession and custody of the Wholesale Drug Exchange, a body corporate, at a numbered place in the city of Washington.

The drugs, it is alleged, are intended to be used for the cure and mitigation and prevention of diseases of man. They are described as follows:

"Twenty packages, more or less, of said drug, labeled and branded as follows: 'Antikamnia Tablets, Contain 305 grains of acetphenetidin, U. S. P. per ounce, Guaranteed by the Antikamnia Chemical Company, under the Food and Drugs Act, June 30, 1906, U. S. Serial No. 10. The Antikamnia tablets in this original ounce package contain no acetanilid, antifebrin, antipyrin, morphine, opium, codein, heroin, cocaine, alpha, or beta eucaine, arsenic, strychnine, chloroform, cannabis indica, or chloral hydrate, Antikamnia tablets five grains. One ounce Antikamnia tablets. Manufactured in the United States of America by the Antikamnia Chemical Co., St. Louis, U. S. A.'

"Also seventy other packages, more or less, of said drug, labeled and branded as follows: 'Antikamnia and Codein Tablets. Contain 296 grains acetphenetidin, U. S. P. per ounce. Contain 18 grains sulp. codein per ounce. Guaranteed by the Antikamnia Chemical Company, under the Food & Drugs Act, June 30, 1906. U. S. Serial No. 10. The Antikamnia tablets and Codein tablets in this original ounce package contain no acetanilid, antifebrin, antipyrin, morphine, opium, heroin, cocaine, alpha, or beta eucaine, arsenic, strychnine, chloroform, cannabis indica, or chloral hydrate. One ounce Antikamnia and Codein tablets. Manufactured in the United States of America by the Antikamnia Chemical Co., St. Louis, U. S. A.'

"Also ten other packages, more or less, of said drug, labeled and branded as follows: 'Antikamnia and Quinine tablets. Contain 165 grains acetphenetidin, U. S. P. per ounce. Guaranteed by the Antikamnia Chemical Company, under the Food and Drugs Act, June 30, 1906, U. S. Serial No. 10. The Antikamnia and Quinine tablets in this original ounce package contain no acetanilid, antifebrin, antipyrin, morphine, opium, codein, heroin, cocaine, alpha, or beta eucaine, arsenic, strychnine, chloroform, cannabis indica, or chloral hydrate. One ounce Antikamnia and Quinine tablets. Manufactured in the United States of America by the Antikamnia Chemical Co., St. Louis, U. S. A.'"

The ground of confiscation and condemnation alleged is that all the packages of the drugs contain a large quantity and proportion of acetphenetidin, which, it is alleged, is a derivative of acetanilid, and that under the provisions of the Act of Congress and of the regulations lawfully made thereunder it is provided and required that the label on each of the packages shall bear a statement that the acetphenetidin contained therein is a derivative of acetanilid; and yet, it is alleged that each and all of the packages fail to comply with such provisions.

It is also alleged that the packages are further misbranded, in that the labels thereon are false and misleading, for the reason that each and all of them bear the statement that no acetanilid is contained therein, and that the statement imports and signifies that there is no quantity of any derivative of acetanilid contained in the drug.

A warrant of arrest was issued upon which the marshal duly made return that he had arrested twenty packages of Antikamnia tablets, ten packages of Antikamnia quinine

tablets, and sixty-three packages labeled "Antikamnia and Codein Tablets," and otherwise duly executed the warrant.

The Antikamnia Chemical Company, appellee and defendant in error, alleging itself to be the owner of the drugs, petitioned to be made a defendant in the libel. The petition was granted, and the company thereupon filed the exceptions to the libel. The exceptions negative in detail the charges of the libel and assert conformity in the labeling of the packages to the Act of Congress of June 30, 1906, quoting its 8th section as follows: "* * * or if the packages fail to bear a statement on the label of the quantity or proportion of any alcohol, morphine, opium, cocaine, heroin, alpha, or beta eucaine, chloroform, cannabis indica, chloral hydrate, or acetanilid, or any derivative or preparation of any such substances contained therein." And it is averred that the Act does not provide that there should be added to any derivative of any of the substances contained therein the name of the parent substance, and the Act cannot be added to or enlarged by requiring the company to add to the name of a known article, the fact that the article is a derivative of any of the substances mentioned in the Act. It is averred, therefore, that the packages are not misbranded and that the statement on the labels that no acetanilid is contained therein is in no way false or misleading because the libel does not allege that there is acetanilid in the packages, and therefore, the statement instead of being false and misleading is, according to the allegations of the libel, true.

The exceptions were sustained and the libel dismissed.

It was stipulated that Food Inspection Decision No. 112, issued January 27, 1910, by the United States Department of Agriculture, was considered by the court upon the hearing of the cause and should be included in and be considered part of the record of appeal.

The decision quotes section 8 of the act, states that the Attorney General, in an opinion rendered January 15, 1909, held that a derivative is a substance so related to one of the specified substances "that it would be rightly regarded by recognized authorities in chemistry as obtained from the latter 'by actual or theoretical substitution,' and it is not indispensable that it should be actually produced therefrom as a matter of fact;" further that the labeling of derivatives as prescribed by section 8 is a proper subject conferred upon the department by section 3 and that a rule or regulation requiring the name of the specified substance to follow that of the derivative would be in harmony with the general purpose of the act, and an appropriate method by which to give effect to its provisions.

In conformity to this opinion, Regulation 28 of the Rules and Regulations for the enforcement of the Food and Drugs Act was amended as follows: "* * * Acetanilid (antifebrin, phenylacetamid). Derivatives—Acetphenetidin, * * * (g). In declaring the quantity or proportion of any of the specified substances the names by which they are designated in the Act shall be used, and in declaring the quantity or proportion of the derivatives of any of the specified substances, in addition to the trade name of the derivative, the name of the specified substance shall also be stated, so as to indicate clearly that the product is a derivative of the particular specified substance."

The decree of the Supreme Court of the District dismissing the libel was affirmed by the Court of Appeals.

The case is not in very broad compass, though the arguments of counsel are somewhat elaborate. The libel is prosecuted for the condemnation of one hundred packages of Antikamnia tablets as being misbranded in violation of the Food and Drugs Act of June 30, 1906, 34 Stat. 768. The tablets contain acetphenetidin and the labels so state, and the proportion of the substance. It is a derivative of acetanilid, but the labels do not so state but do state that the tablets contain no acetanilid. And these omissions, it is contended by the Government, constitute a violation of the statute and of Regulation No. 28 as amended. The chemical company contends that the first statement is not required by the law and that the second statement is true, and therefore cannot be false or misleading.

Preceding the discussion of these contentions a question

of jurisdiction is presented by the chemical company and a motion to dismiss is made on the ground that only the construction of the statute is involved in the decision of the court below. The company also moves for an affirmance of the judgment on the ground that the appeal is frivolous. Contra the Government contends that the Court of Appeals held invalid the regulation requiring the name of the primary substance as well as that of the derivative to be stated on the label; and that there is not only drawn in question, but so far denied, an authority exercised under the United States. We concur in this view. The validity of the regulation was and is denied. Its validity may, indeed, rest on the statute, but so did the validity of the rule of the Patent Office passed on in *Steinmetz v. Allen*, 192 U. S. 543. We there said of a rule of practice established by the Commissioner of Patents under a section of the Revised Statutes, "It thereby became a rule of procedure, and constituted, in part, the powers of the primary examiner and commissioner. In other words, it became an authority of these officers, and, necessarily, an authority 'under the United States.' Its validity was and is assailed by plaintiff in error. We think, therefore, that we have jurisdiction, and the motion to dismiss is denied." *United States ex rel, Taylor v. Taft*, Secretary of War, 203 U. S. 461, is not in antagonism to this ruling. In that case the relator was dismissed from the public service by an order of the Secretary of War as representative of the President. She sought restoration by mandamus. It was denied and she brought the case to this court on the ground that the validity of an authority exercised under the United States was drawn in question. Dismissing the case, this court said that as she did not question the authority of the President or his representative to dismiss her, but contended only that certain rules and regulations of the civil service had not been observed, the validity of an authority exercised under the United States was not drawn in question but only the construction and application of regulations of the exercise of such authority. *Steinmetz v. Allen* was said not to be contrary, "for there the validity of a rule constituting the authority of certain officers of the Patent Office was drawn in question."

Motion to dismiss is denied.

Joined with the motion to dismiss, we have seen, was a motion to affirm on the ground that the question of the authority of the secretaries to make the regulation is frivolous in view of the decisions in *United States v. Grimaud*, 220 U. S. 506; *Williamson v. United States*, 207 U. S. 425, and other cases. How far this contention is tenable will be developed as we proceed with the consideration of the Act and the power of the secretaries under it.

The purpose of the Act is to secure the purity of food and drugs and to inform purchasers of what they are buying. Its provisions are directed to that purpose and must be construed to effect it.

Section 3 gives the Secretary of Treasury, the Secretary of Agriculture and the Secretary of Commerce and Labor power to "make uniform rules and regulations for carrying out the provisions" of the act and the power to collect specimens of foods and drugs offered in interstate and foreign commerce. It adopts the definitions of the United States Pharmacopoeia or National Formulary and provides (section 8) that the term "misbranded" as used in the Act "shall apply to all drugs * * * the package or label of which shall bear any statement, design or device regarding such article, or the ingredients or substances contained therein, which shall be false or misleading in any particular." And further in case of drugs, an article shall be deemed to be misbranded "if the package fail to bear a statement on the label of the quantity or proportion" of certain enumerated substances "or acetanilid, or any derivative or preparation of any such substances contained therein."

These are the applicatory provisions. How are they to be construed?

First, as to the power of the secretaries. It is undoubtedly one of regulation only—and administrative power only—not a power to alter or add to the Act. The extent of the power, however, must be determined by the purpose of the Act and the difficulties its execution might encounter. The fact that a council of three secretaries of governmental departments was given power to make the rules and regulations for the execution of the law shows how complex the matters dealt with were considered to be, and the care that was necessary to be taken to guard against their defeat or perversion. The composition of drugs is a matter of technical skill, their denomination often by words of scholastic origin conveying no meaning to the uninformed, their uses and abuses learned only by experience, beneficial or evil. It was this experience

that the law sought to avail itself of and to avail itself against the ever increasing powers of the laboratory or the disguises of technical nomenclature. Hence the provision of the law that the term "drug" as used in the act shall include all medicines and preparations recognized in the United States Pharmacopoeia or National Formulary for internal or external use, and hence also the provision that a drug or food product is misbranded in case it fails to bear a statement on the labels of the quantity or proportion of certain enumerated substances, including acetanilid, "or any derivative or preparation of any such substance contained therein." Experience had demonstrated the quality of those substances, their effects had become common knowledge; their names, therefore, were all the warning that was necessary for the law to give. But derivatives of them might, probably would, be of their quality, so derivatives of them were to be guarded against, and the law hence further provided that the labels on them should state "the quantity or proportion" of "any derivative or preparation" of them. This much is clear—there is no obscurity in the words and purpose of the law. The query then occurs, such being the words and purpose, if the quantity or proportion of the substances or any derivative or preparation of them must be stated, is it administrative of the law or additive to it to require by regulation that not only the name of the derivative or preparation be stated but from what substances derived or of what it is a preparation? It certainly cannot be said that the purpose of the law is not exactly fulfilled by the regulation. If it fulfills the purpose of the law, it cannot be said to be an addition to the law, unless, indeed, it can be contended that the law provided a means for its defeat by the easy device of mysterious names. There is illustration in the present case. What information does the use of the word "acetphenetidin" convey to anybody of its good or evil origin? If it be said, that the like question may be asked of any of the primary substances, we reply that they are the precautions of the law and adopted such because they had demonstrated themselves, the value of their use, the detriment of their abuse, and it was believed that their names would carry no deception.

But let us turn from the power of the secretaries to the law itself, and inquire if it needs the assistance of a regulation. It is the contention of the government that it does not, that its requirement that the primary substance should be labeled, and that their derivatives should be labeled means, necessarily, that it should be stated of what they are the derivatives to make the warning of the labels complete. A great deal of what we have said in discussing the power of the secretaries applies to this contention and supports it. The purpose of the law is the ever insistent consideration in its interpretation. The purpose is to prevent the surreptitious sale of certain noxious drugs or their derivatives, the latter supposedly partaking of the quality of parent article and as effective of evil consequences. This being the purpose, did the law leave it unexecuted? We cannot attribute to it such defect, and a serious defect it might be. Nor can we consider as a case of omission that which involves so definitely the mischief which was intended to be redressed and which is fairly within the language of the law. And we say this without regard to the various illustrations contained in the Government's brief of the deceptions which can be practiced by using the name of the derivative alone, for the chemical company insists that we may not, in the absence of allegations and proof, look for knowledge in encyclopedias, or medical lexicons or to trade practices for trade disguises, actual or possible. It is not necessary to enter upon the challenged ground. The law furnishes its own tests of what the label should reveal, and we may grant, for the argument's sake, as contended, that it has penal character, but this does not mean that it should not be given its reasonable intendment. There is no hardship in this either to the manufacturer or the seller of drugs. They surely know what they make or vend—know whether it is primary or of what a derivative—and the law requires only that they put their knowledge on the labels for the information of purchasers. No serious burden is thereby imposed on honest business. Indeed, it makes the label on the packages an assurance as well as a warning and benefits all concerned, manufacturer, seller, and purchaser. And this in the interest of the public health.

Decree reversed and cause remanded with direction to reverse the decree of the Supreme Court and remand the cause with direction to overrule the exceptions to the libel.

True Copy.

Test.

CLERK SUPREME COURT, U. S.

Pennsylvania Correspondence

(From our Staff Correspondent.)

HARRISBURG, PA., Jan. 30.—While the lawyers have laid before the Dauphin county court judges their briefs in the first test of the constitutionality of the cold storage regulation act of 1913 people in the trade are getting ready to take up with the state authorities preparation of bills for the clarification of the vague points of the statute, for there are several gaps in the law, places which the legislators in their lack of expert information, inexperience and failure to study the cold storage business failed to adequately cover. But for the co-operation extended to the dairy and food commissioner by people in the cold storage and produce business, the people actually conducting establishments, there would have been more or less jangling. As it is, the cold storage people have put forward test cases and the arrests for violation of the law have come from the retail trade, those wherein people refused or neglected to placard cold storage foods as such or violated the withdrawal clause.

The action argued in the Dauphin county court, which is the starting place for constitutional questions, was on the part of half a dozen of the big cold storage firms of the state, the basis of their contention being that the act was confiscatory in that it provided that foods stored beyond the legal limit were declared outlawed and were a loss. It will be recalled that the statute leaves the dairy and food authorities in rather a singular state as while they are empowered to outlaw goods they may not destroy them, but can not let them get into the market. This is a point on which an agreement will likely be reached next winter. The action referred to is a bill in equity in which it is asked that the commissioner be restrained from enforcement of the law. The second action is a criminal suit, brought to test the clause prohibiting return of products to cold storage when once removed. A Harrisburg firm was picked out for this action and in this again it is contended that constitutional property rights are violated and that the regulation is burdensome.

Judging from reports reaching here an effort to repeal the whole cold storage act may be made next winter, but a series of amendatory bills, agreed upon by the state authorities and the men in the business are more likely to get through as cold storage is more or less of an issue yet.

The year 1913 was rather an active one for the dairy and food commissioner's men and Commissioner James Foust reports that the figures just compiled show that during the year 1,288 prosecutions were brought. One-third of this number were for violation of the law providing standards for milk and cream, and while there was ample evidence that the pump was called into service, scarcely any adulteration by the old-time chemical method was discovered. Pure food cases numbered 285, covering about forty articles, in which decomposed and unfit foods were driven from stores; the enforcement of the pure vinegar act, now being tested in the courts, caused 215 suits, some of the adulterations being chemical; ice cream law violations, 78; arrests for sale of unmarked cold storage products and other violations of the new law, 72; adulterated non-alcoholic drinks, in many of which saccharine figured, 65; oleomargarine law violations, 47; fruit syrup violations, 22; rotten egg sales, 50; sausage adulterated with cereals, 18; adulterated lard, 14, and renovated butter, 4. The suits by months were: January, 47; February, 87; March, 98; April, 125; May, 145; June, 171; July, 127; August, 52; September, 132; October, 135; November, 76; December, 93.

Some of the arrests were for the sale of chickens and game which were found to be too "high." A large quantity of chickens were condemned in Philadelphia, where the state and city authorities co-operated and the enforcement led to a demand for the enactment of a law regulating storage between the states. Incidentally, strenuous objections to the time limits in the present law have been entered and a fight on this point may be a feature of next winter's legislative session, especially as various bodies meeting this year will call attention to it.

Dairy and Food Commissioner Foust plans to ask the next legislature to pass an act prohibiting any kind of alcoholic liquor in ice cream made for public sale. The use of any liquors or alcoholic product in confectionery is prohibited, and the commissioner would extend it to ice cream. There

has been, according to reports, considerable abuse of this kind and children have been found in some cities specializing on ice cream containing sherries and other wines.

The commission has also sent word to agents to look out for tablets.

The first objection to the new commodities act of 1913, which establishes a standard for some eighty articles in common use and lays down the law on methods of measurement, wet and dry, has come from the State Horticultural Society. It is contended that the act is unjust and too severe. It is probable that with the advent of the berry season that the people who have found measures of ancient lineage and hitherto unquestioned veracity in the orchard and the barn are not in accord with the law will have more with them in their objection to the act. Thus far the state authorities have been lenient in enforcement of the act, but a general order regarding it will go to city and county sealers.

Under a decision of the attorney-general's department, a refrigerator ship ranks the same as a car, and foreign beef may be sold in the markets as fresh, providing it has not been in a ship more than thirty days. Such a decision was anticipated.

Oleomargarine licenses thus far have exceeded 1,625, making a record for this time of the year. The licenses are effective January 1. The total for 1913 was about 1,900.

The Dauphin court took the papers in the equity action to test the constitutionality of the cold storage law after testimony had been presented to show how the law had operated to reduce business in several Philadelphia storage warehouses, and that the nine months clause on fish forced dealers to go to Canada for frozen shad and smelts. The charge was made that the law is an unwarranted exercise of police power and confiscatory of property, the storage periods being attacked. The administration declared that the law was needed to protect the food supply.

The eight million people of Pennsylvania spend annually about \$90 each for food, making their food bill reach the interesting total of \$720,000,000. Large as this sum is, the value of the public health and of the business morals to the community is vastly greater. The State Dairy and Food Commissioner is charged with the supervision of the food trade to see that the foods are clean, sound and unadulterated and their sale kept free from fraud. He presents a summary of the operations and cost of his branch of the public service for the years during which he has been responsible for its direction. His figures show that the cost of the service is about twelve cents for each \$1,000 of food purchased, but that the receipts from fines and license fees are about twice the expenditure; so that there is no direct tax upon the consumer. The Commissioner notes that the Cold Storage Act has been in force only about four months, but that the experience gained shows the desirability of improving the Act so as to make it less vague at certain points, so as to make the owner and warehouseman jointly responsible for property disposing of foods made legally unsalable by over-long storage, and to provide more perfectly for the care of cold-storage foods after their withdrawal from the warehouse for sale. The facts set forth by the Commissioner are:

Year.	Samples analyzed.	Cases terminated.	Receipts.	Expenditures.
1907.....	7,400	664	\$ 55,732.63	\$ 78,455.88
1908.....	8,300	300	54,580.62	69,968.20
1909.....	6,200	797	86,594.15	83,700.00
1910.....	5,594	667	110,802.95	79,661.65
1911.....	8,200	1,029	120,993.48	83,083.15
1912.....	7,204	1,049	136,125.49	81,858.55
1913.....	6,851	1,025	173,789.76	75,587.12
	49,749	5,531	\$738,619.08	\$552,314.55

Comparing the receipts and expenditures for the seven years, the total receipts were \$186,304.53 more than the expenditures.

The informal meeting of the Chicago section of the American Chemical Society will be held Friday, February 13. It is hoped by the management the superstition connected with the day and date will not keep any members away.

INDIANA CORRESPONDENCE.

Indianapolis, Ind., Jan. 26.—Out of ninety-three samples of food analyzed in the state's pure food laboratories last month only sixteen were found illegal. This, perhaps, is the best record for a month's work in the history of the department. The growing tendency in Indiana, toward a more wide-spread appreciation of the pure food laws, is attracting attention of mayors, city officials, county officials and the laymen. It is a cause for great rejoicing in the state. Of the four ciders analyzed in the month three were legal and only one illegal, because of the presence of benzoate of soda. One of the five samples of grapejuice analyzed was declared illegal because of the presence of sulphites. Two of the three illegal butters examined were found to be oleomargarine. The two illegal creams were low in butter fat and slightly dirty.

Two of the three samples of vinegar analyzed were low in acidity and were classed as illegal.

Persons, closely in touch with the higher officials of the state of Indiana, let it be known today that there might be in the near future, another big action against certain alleged food adulterators which might rival the famous benzoate of soda cases. No details of this possible move have been made public and it is probable they will not be until definite plans for the conclusion of the action are formed. It is uncertain whether the cases will be begun, however, state officials say.

The inspectors of the state board during last month visited seventy-four Indiana cities and towns and made 1,201 inspections. Of this number seven food-handling establishments were reported in "excellent" condition; 605 were "good"; 567 were "fair"; twenty-one were "poor" and one was "bad." Of the 497 grocery stores in the state visited 264 were "good" and 227 were "fair." Ninety-one meat markets were classed as "good," 122 "fair," three "poor" and one "bad."

Three of the 11 drug stores inspected were rated "excellent." Eighty-eight were rated "good," nineteen "fair" and one "poor." Seventy-five bakeries and confectioneries were "good," eighty-three "fair" and two "poor." Three of the seven slaughter houses visited were classed as "good," three "fair" and one "poor." Eleven prosecutions for violation of the state's food laws were brought and the total fines amounted to \$218.85. Two cases involved the sale of sausage containing cereal; five the sale of dirty or watered milk; three dealers were prosecuted for selling exposed candies and one dealer was prosecuted for hauling meat improperly protected. The first maple syrup that has appeared in the Indiana market came from Hazleton, Ind., late this month. John Owens, of Worthington, Ind., has resigned as educational secretary of the Indiana state board of health to become a publicity man for the Illinois state board, under W. Scott Matthews.

H. E. Barnard, state food and drug commissioner, has mailed to every superintendent of a water works plant in every Indiana city a notice asking for co-operation with state authorities by officers of municipalities in a campaign to bring the water supplies of Indiana cities up to standard. An analysis of each water supply in Indiana at least four times a year is the aim of the State Board of Health from now on, according to the announcement of Mr. Barnard.

"The necessity for a rigid control of the quality of water furnished the consumer is well understood by all who have to do with supplies," the commissioner said. "While there are some deep well supplies so located that pollution of the wells themselves is not possible, yet from time to time it is found that there is trouble at the reservoir or elsewhere in the system and that the quality of the water is not satisfactory. This is much more frequently the case with surface water supplies, whether they are derived from a river or lake or impounded rainfall.

"No surface water is free from the danger of pollution, and it is this class of supplies that can be served most advantageously by the state laboratories. We desire to work with you first to secure as satisfactory a supply as can be obtained, and second, to assist you in keeping that supply at all times in a potable condition.

"The first object may necessitate sanitary surveys of the watershed and a thorough study of all local conditions; the second is best accomplished by a careful laboratory control. This is especially desirable where filters are in operation or where some modification of raw water is attempted. The state laboratory now is equipped with emergency hypochlorite of lime plants, which will be loaned to cities whenever the occasion warrants."

CONSERVATION OF FOOD PRODUCTS.

Dr. M. E. Pennington of the U. S. Department of Agriculture in an address at the Food Question Banquet of the Philadelphia Produce Exchange spoke as follows:

"No other civilized country wastes foodstuffs as we waste them. If all the crops that the farmers raise were utilized; all the meat animals that are killed eaten; all the fish that come into the nets marketed, hundreds of thousands who are now hungry would be well fed and the agitation on the subject of high prices would not attract much attention. Conservation of foodstuffs, in its broad sense, means not only the saving of the excess production of flush seasons for the seasons of scarcity, but it means also the systematic scientific care that prevents wormy apples, or windfalls, prevents the fermentation of carload after carload of corn, prevents the rancid butter from the dirty farm, or the rotten eggs, or the tainted chicken.

"The toil of the farmer results in the production of foods. Faulty handling, from the time the apple is ripe, the egg is laid or the fish caught—for in essentials our fishermen are comparable with our farmers—reduces enormously the amount which finally reaches the consuming center, and lowers to even a greater extent the quality of a large proportion of that which is saved from the crematory or the dump.

"Go to any of the market terminals in this city on a summer Wednesday or Saturday, between 12 and 4 a. m., and see for yourselves the wastage of vegetables because of decay, low quality, or market gluts. Look at the spoiled poultry during a warm autumn such as we have just experienced—thousands of pounds of it. What are we doing, as broad-minded, intelligent citizens to acquaint ourselves with such facts and to assist, intelligently, those who are more directly charged with such responsibility?

"For centuries we have conserved meat by smoking or salting, fish by smoking and drying, winter vegetables by earth cellars. Our great canning industry has so improved and developed the elemental principles of the housewife's 'preserving' that it has literally resulted in altering the face of the earth. Man now lives, healthfully, where he could not live heretofore. Canning foodstuffs has also served to equalize the seasonal supply, and is truly conservational. Latest in its development and broadest in its benefits and conserving power, has come refrigeration—again a great industrial development from the housewife's springhouse, or cellar or ice house.

"To refrigeration, more than to any other single factor, must we look for the elimination of decay, the preservation of quality and the conservation of perishable products. Like 'smoking,' which means the preservation of the meat by the combustion products of wood; or 'canning,' which means that bacterial life is killed by heat, refrigeration must be specially and accurately applied if its maximum benefits are to be obtained. It must be combined with 'good handling,' as the broad phrase goes; that is, the perishable article must be put under refrigeration while it is sound and fresh, just as it should be canned while it is sound and fresh. National and State and municipal agencies are now endeavoring to inculcate improved methods of handling foodstuffs at the source of production, and frequently refrigeration is an absolutely necessary part of such methods. The railroads are adding refrigerator cars by the thousand each year, to haul these perishables safely. Refrigerated terminals are being built to receive them, refrigerated warehouses in which to hold them until they are needed.

"Only one thing intervenes to prevent refrigeration as a conservator of both quality and quantity of food products from being the greatest price-equalizing agency that we at present possess, and that is the ignorance of the consumer of the source and time of the production, transportation and storage of our food supplies. The cupidity of the dishonest tradesmen is fed by this ignorance. If the consumer does not wish to eat refrigerated products he should not be compelled to do so. But he will find that his winter bill of fare will show an overwhelming preponderance of salt pork, corned beef, carrots, turnips and potatoes. If he is to continue to have the cream of all the seasons the year around he must accept them preserved by sterilization or refrigeration—more especially the latter. And to obtain to the full the benefits due him, he must have a more intimate, more exact knowledge of whence, and how came the food to the markets. He must lend the aid of his knowledge toward the solving of the food question, part of which is the saving of waste and the equalization of supplies."

THE SHREDDED WHEAT FAMILY.

The annual conference of "The Shredded Wheat Family," which has been held at Niagara Falls during the week just closed, says the Buffalo Express, is unique among these industrial family reunions. The event was of more than passing interest to Buffalonians who have watched the growth of this remarkable industry. While the beautiful plant is located at Niagara Falls many Buffalonians are pleased to regard it as a Buffalo industry because of the large holdings of stock in Buffalo and because three members of the board of directors are citizens of Buffalo and have long been identified with its management.

The factory at the Falls is the concrete realization of a "dreamer" who builded better than he knew. It is visited annually by over 100,000 travelers from all parts of the world. It is also literally true that this company has belted the globe with Shredded Wheat Biscuit, for there is no country where civilized human beings live where the product may not be found. While breakfast foods have come and gone, Shredded

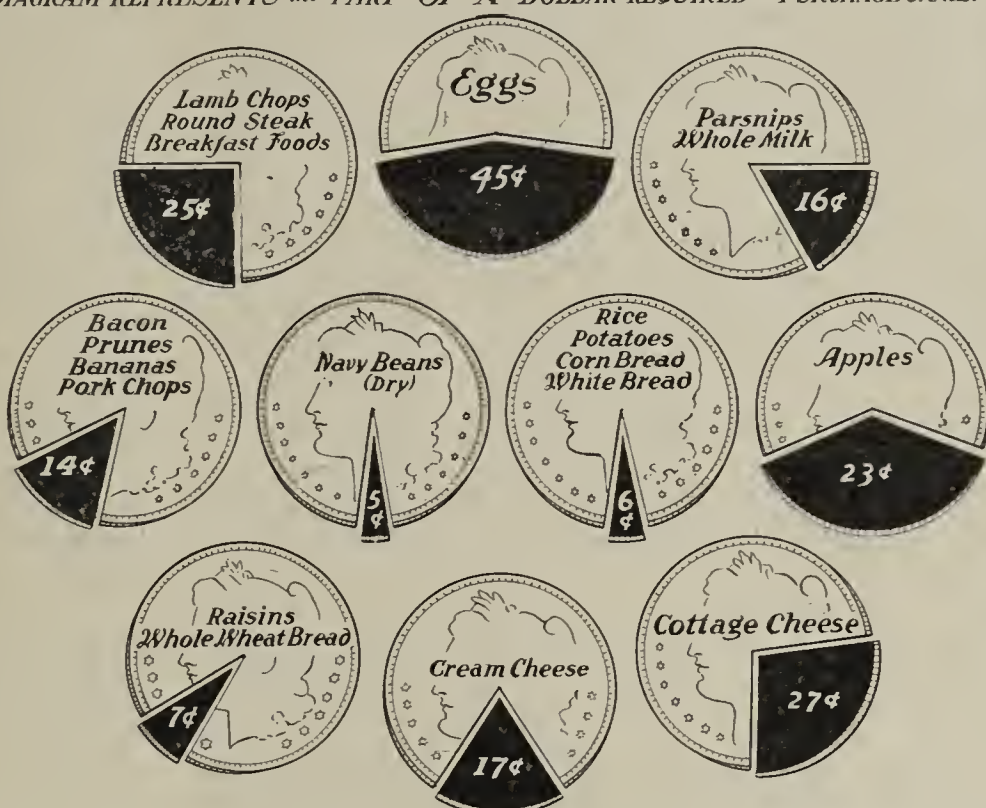
Mason, Niagara Falls; director of publicity, Truman A. De Weese, Buffalo; treasurer, Frank L. Monin, Niagara Falls; sales manager, James Traverse, Niagara Falls; assistant advertising manager, George Slate, Jr., Niagara Falls; purchasing agent, R. F. Meek, Niagara Falls; traffic manager, R. W. Ogden, Niagara Falls; director of welfare work, Eugene Girard, Niagara Falls; general superintendent, W. C. Marlow, Niagara Falls. The general sales agents are as follows: C. S. Tuttle, Niagara Falls; M. W. Killeen, New York City; special representative, John H. Meyer, New York City; H. G. Flint, Philadelphia; R. J. McCormick, Boston; B. L. Herrick, Detroit; G. E. Green, Chicago; R. H. Turver, Denver; Fred Lorenz, Minneapolis; F. B. Black, Kansas City; W. A. House, Atlanta; A. W. Norcross, New Orleans; T. P. Jones, Los Angeles; W. S. McGuire, Portland, Ore.; John Hewitt, Toronto, and B. B. Foster, London, England.

Following are the members of the board of directors: Ogden Mills, Ogden L. Mills and Ogden Mills Reid, New York City; Robert W. Pomeroy, William Hamlin, George A.

A TABLE SHOWING the NUTRITIVE VALUE and COST of the FOLLOWING FOOD PRODUCTS as COMPARED to ONE DOZEN EGGS.

The DIAGRAM REPRESENTS the PART OF A DOLLAR REQUIRED to PURCHASE SAME.

Kind of Food	Cost	Weight lb oz	Total Cost
Eggs	\$0.45 per dozen	1- 9.4	\$0.45
Cream Cheese	.30 per lb	9.11	.17
Cottage Cheese	.10 per lb	2-10.5	.266
White Bread	.05 3/4 lb	-14.62	.06
Whole Wheat Bread	.06 3/4 lb	-15.59	.077
Corn Bread	.05 3/4 lb	-14.74	.061
Breakfast Foods	.0666 per lb	3-14.3	.258
Whole Milk	.09 quart	3- 9.5	.152
Bacon	.40 per lb	- 5.86	.146
Pork Chops	.22 per lb	-11.24	.147
Lamb Chops	.35 per lb	-11.54	.252
Round Steak	.25 per lb	-15.73	.246
Rice	.10 per lb	-10.33	.064
Potatoes	.35 per pk	2-14.1	.067
Parsnips	.33 per lb	4-13.6	.161
Navy Beans (Dry)	.07 per lb	-11.1	.047
Apples	.06 per lb	3-13.3	.229
Bananas	.20 per dozen	2- 6.6	.116
Prunes	.15 per lb	-12.76	.119
Raisins	.10 per lb	-11.07	.069



Illinois State Food Commission

BULLETIN NO. 27

Wheat has survived the ups and downs of public fancy and is now recognized as a staple product, showing a steady increase in sales from year to year no matter what conditions may exist in the industrial and business world. The success of this business is generally attributed to wise, conservative business management and intelligent educational advertising combined with a product that meets all the highest standards of cleanliness, purity and nutritive value in food manufacture.

The conference this year was attended by the executive officers of the company and the general sales agents from all over the Union, also from Canada and the British Isles. The proceedings consisted of papers and addresses covering every department of the work in the field. In addition to the business sessions held in the Shredded Wheat plant the company provided in its usual lavish way for the entertainment and amusement of its representatives. The entertainment included a "get-together" family dinner and concert by the Shredded Wheat concert band, a band of 45 pieces; a dance in the auditorium of the Shredded Wheat plant with music by the Shredded Wheat orchestra, ending with a banquet to the agents and representatives in the private dining-room of the Shredded Wheat plant. The officers of the company, heads of departments and general sales agents who attended the sessions of the conference are: President, Alexander J. Porter, Niagara Falls; vice president and general manager, Fred

Mitchell, Carlton M. Smith, Buffalo; DeLancey Rankine, Niagara Falls; David Fasken and Joseph Henderson, Toronto, Canada.

STATED IN THE CONCRETE.

The chart published herewith is a concrete expression of a very large problem, in which all are interested. It shows at a glance the comparative cost of various foods with eggs at a forty-five cents per dozen. The chart is the creation of D. T. Dunning of the Illinois food commission staff, and is indeed a very clever piece of work.

The State Department of Pure Food and Drugs of Tennessee is cordially co-operating with the various women's clubs over the state in an educational campaign with reference to adulterated and misbranded food products and drugs. Realizing the effective work that these clubs are doing, Dr. Lucius P. Brown, head of the department, is preparing and will shortly have ready for distribution to these clubs upon request, a series of study topics dealing with the various food products, drugs, sanitation, preventable accidents, etc., which many of the organizations will incorporate in their program for the new year's work.

Effect of Legislation Upon Chemical Industries

ADDRESS BY PRESIDENT T. B. WAGNER AT ANNUAL MEETING OF AMERICAN INSTITUTE OF CHEMICAL ENGINEERS

AT the end of the eighteenth century an observation was made by Scheele in his laboratory, the results of which have meant more to the prosperity of all peoples inhabiting this planet than any other invention—chemical or otherwise. I am referring to the observation which disclosed the fact that cyanide of potassium is capable of dissolving gold. While this discovery was of much scientific interest at the time, and led Faraday to explain it by an elaborate theory, no industrial application was made of it until about one hundred years later. In April, 1890, the first plant operating under the McArthur-Forest method for treating ore tailings was started in Johannesburg. The effect of this process is reflected in a tremendous increase of the world's output of gold; consequently, the cyanide process plays an important part in the monetary system of the world, as the increased gold production effected by it has dispelled the fear that there might not be enough of the precious metal to maintain the gold standard of the civilized nations. The struggle in this country for the maintenance of the gold standard is within the memory of all, but I fear that, as in other instances, credit was not given to the chemist for his share in having the gold standard preserved.

The recital of this invention has no immediate bearing upon my subject; except, in so far as it goes to prove that the furtherance of civilization and the furtherance of industries depend largely upon underlying conditions, which, in their incipency, may seem trivial. That is the case with the effect of legislation upon the development of chemical industries. The chemical industries of the world are a little over one hundred years old, yet, in point of advancement and financial returns, their success is without a rival. Strange as it may seem, the starting of industrial enterprises is not always due to the chase for the almighty dollar, as is generally and perhaps pardonably assumed, but in many instances it is directly caused by the enactment of laws with more or less restrictive tendencies.

THE BEET SUGAR INDUSTRY.

Let us go back to the birth of the chemical industries in the beginning of the last century. Napoleon the First, whose fame as a statesman and as a conqueror will stand like a beacon light as long as history shall be written, was at war with England. To crush his rival, this far-sighted statesman conceived the idea that the most effective way of accomplishing his purpose lay in the crippling of England's trade. The Continent naturally was the principal buyer of England's colonial products. Napoleon, therefore, in 1806, issued a *ukase*, according to which England's colonial products were barred from the Continent, and all trade relations with England were forbidden; any country violating this *ukase* was apt to find itself involved in war with France. This *ukase* is known as Napoleon's "colonial blockade." Among England's most important colonial products was cane sugar, but with the enforcement of the blockade, the Continent found itself unable to obtain this sweetening agent, without which life seems to be less sweet indeed. The price of sugar rose enormously and an impetus was thus given to the exploitation of the discovery of Margraf, made in 1747, that the ordinary garden beet root contained considerable quantities of sugar, identical with that found in the sugar cane. The first factory was built in Germany in 1801. Since then, this industry has had a marvelous growth, and the present production of sugar from this source exceeds that from cane. The world's production of sugar today is 18,500,000 tons, of which 9,000,000 tons are obtained from the sugar cane, and 9,500,000 from the sugar beet. Of the latter only a little over 600,000 tons are produced in this country, the factories engaged in its manufacture numbering 72. Incidentally I might mention that while at the beginning of the industry about twenty tons of beets were required for the production of one ton of sugar, the same amount of sugar is now obtained from only seven tons of beets. It is also worthy of mention that all of the potassium contained in the sugar beets and fully 65 per cent of their contents of nitrogen are recovered from the molasses and utilized over again. What effect the latest legislation, the new tariff, will have upon the industry in this

country, whether it will prove that it has outgrown the state of an infant industry, or whether it still requires the friendly and substantial support of a high protective tariff—that the future will demonstrate within a few years.

THE PRODUCTION OF GRAPE SUGAR FROM STARCH.

Coincident with the establishment of the beet sugar industry was that of another industry which was destined to play an important part in the economic conditions of this country and Germany, viz., the production of grape sugar from starch. The success of this new industry, it may be rightly assumed, is also attributable to Napoleon's exclusion of England's cane sugar from the Continent. The conversion of starch into a reducing sugar, by means of a dilute acid and heat, was discovered in 1811 by Kirchhoff, a teacher at the Imperial Academy of Sciences at St. Petersburg, and the first factory was built in Germany in the same year by the Grand Duke of Saxe-Weimer, at the instance of Professor Doebereiner, of the University of Jena, who you will remember as the inventor of the first "hydrogen lamp." Bearing in mind the present magnitude of this industry, it is interesting to read of the financing of this pioneer factory in Germany. I quote from a letter of the Grand Duke to Professor Doebereiner:

"The subscription is assured; my wife and I, my son and his wife are the four stockholders, each contributing one hundred taler. I shall advance the capital of four hundred taler, which is to bear interest at 5 per cent, and shall turn this over to you; you may then proceed immediately to start the plant. I shall deed my shares to you; I wish you every success and I am convinced that you will proceed carefully. As regards the concession I believe it can be arranged that it shall be granted for a period of years; however, it must not include the home production of syrup for home use. I intend coming to Jena this week; I shall then bring the money with me and we may discuss further details. I have looked up the manufacture of sulfuric acid in Chaptal & Klaproth. It seems to require a large capital, however, to build the lead chamber."

From this small beginning, the industry has grown into one of vast proportions, the yearly production in Germany being 120,000,000 pounds, and whereas, at the start, only grape sugar and syrup were produced, and the potato was the only form of raw material, at present by far the largest amount is produced from Indian corn and the number of different commercial commodities produced from the latter reaches almost one hundred. The industry consumes, in this country, about fifty million bushels of corn annually, or practically one-sixth of all the corn which reaches the markets. These figures must not be interpreted as meaning a steady and unhampered growth of the industry. On the contrary, if all the legislation enacted had had the effect anticipated at the time of enactment, the industry would not have survived these attacks. For instance, in various states, laws were passed putting glucose and grape sugar in the same category as poisons and prohibiting their use in food products. Only last year, attempts were made in the legislatures of two states to exclude glucose from use in confectionery, although it is conceded that its use results in a better grade of candy and that certain goods cannot be made without it.

THE WINE INDUSTRY.

Again, when it was discovered by Dr. Ludwig Gall that grape sugar lends itself admirably to the improving of wines, in which the amount of sugar produced by nature is deficient on account of adverse climatic conditions, this method of ameliorating wines, which has come to be known as "Gallizing," was hailed in Germany as one of the most important discoveries, affecting and improving the economic conditions of the provinces in which the wines were produced. Owing to the large demand which Dr. Gall's discovery created for this sugar, it contributed materially to the growth of the industry. Yet we find that only a few years ago conditions were reversed by legislative action and great restrictions were placed upon the use of this sugar in the amelioration of wines. In this country, the controversy over the use of sugar in wines, only a few months ago, almost caused the failure of the new tariff act. Our domestic wine industry is centered principally in the state of California on one side, and the

states of Ohio and Missouri on the other. California produces grapes rich in sugar, whereas, even the best grapes produced in Ohio are deficient in sugar to such an extent as to produce a wine so low in alcohol as to be almost unmerchantable. The Ohio and Missouri wine producers, therefore, resorted to "Gallizing" ever since the industry was started in their states, about 60 years ago. Their ameliorated wines are said to be as good as any produced in California, yet the wine producers of that state tried to create the impression in Congress and elsewhere that California wines were the only pure wines, whereas, those produced in Ohio and Missouri were adulterated because of the addition of sugar. In the production of sweet wines it becomes necessary to "fortify" the wines with brandy, and the California people succeeded in having an act passed by Congress in 1890, which permitted them to use brandy without paying the spirits tax of \$1.10. It is said that since the passage of this act, the amount of money saved to the California interests was not less than \$63,000,000. To retaliate against California, the Ohio and Missouri interests appeared before Congress when the Underwood tariff bill was under consideration. One section of the tariff act deals with the income derived from internal revenue, and here the Eastern interests saw their opportunity and introduced a bill which would take from the California wine producers the privilege of using tax-free brandy. It would compel them to pay into the United States Treasury annually something like \$8,000,000. The California interests answered in kind by introducing a bill, placing a tax of twenty-five cents per gallon upon all wines produced in the territory east of the Rocky Mountains, which, if enacted into law, would mean the annihilation of the industry in that territory. This, in turn, would injure the grape sugar industry, as it would curtail the consumption of grape sugar. Further consideration of the tariff bill came to a standstill, as this so-called wine clause proved the stumbling-block; and no headway was made until the entire wine clause was eliminated for the time being—Congress agreeing to give it attention during the regular session.

I cite these cases to show the influence of legislation, even though indirect, upon the development of a chemical industry. What is one's loss is another's gain. For instance, the loss of the sugar business to England meant the birth of two important new industries and these in turn influenced the development of other branches of the chemical industries. It is but fair to state that the chemical industries in general owe a great deal to the beet sugar industry. Looking over the list of early chemists, and chemical engineers, who have distinguished themselves in the chemical industries, we find that most of them had their start in a beet sugar factory, likewise many successful works managers, for it was in this industry that the first complicated machinery was installed. The modern evaporating devices as well as the separation of solids from liquids by centrifugal force had their inception in beet sugar works.

I cannot leave this chapter without mentioning another instance bearing upon the beneficial, although unlooked for, results of restrictive legislation. A number of years ago a law was enacted in one of the wine-producing countries abroad with reference to wines made from the residue of the pressings of the grapes, the so-called "Pomace" wines. These wines were introduced by Pétiot, a French wine merchant, and were produced from Bordeaux wines by adding a sugar solution to the residue from the first must and fermenting a second time. The alcohol generated thereby dissolved coloring substances, as well as tannin and the flavoring principles, the "bouquet." This treatment is known as "Petiotizing" and is applied to Bordeaux wines four or five times in succession. Much sophistication was practiced—the pomace wines being sold frequently as natural wines. That government recognized the legitimacy of the "pomace" wines business, but it wanted these wines to be sold for what they were and did not want them sold to the public under a misleading name. The wines were supposed to be sold as "Pomace Wines," and to enable the government officers to distinguish them from "natural" wines, and to identify a pomace wine, the law provided that these wines must receive, before marketing, the addition of a small amount of phenolphthalein. The inspector would examine the wines by adding a few drops of an alkaline solution which, of course, would turn the color red. If the color of a "natural" wine turned red, it was *prima facie* evidence that a pomace wine had been substituted. After this law had been in effect for about a year, it was observed that peasants living in the district where these pomace wines were produced, and consuming rather large quantities of these wines, developed what was then considered a disease and which assumed the proportions of an

epidemic. The government despatched its medical officers to make a thorough investigation, and subsequently they reported that they believed phenolphthalein to be the cause of the trouble. Thereupon clinical tests were instituted and the fact established that phenolphthalein was a most effective cathartic. While heretofore phenolphthalein was used primarily in the laboratories as an indicator, it now assumed an important position among our therapeutic chemicals and is at present manufactured in very large quantities.

THE USE OF SACCHARIN IN FOODS.

Before leaving the subject of sugars, I must not omit a reference to saccharine, a substance which has received extensive attention at the hand of legislative bodies. As you know, saccharine was discovered by Dr. Fahlberg, while taking a post-graduate course with Prof. Ira Remsen at Johns Hopkins University. It was more or less an accidental discovery, as Dr. Fahlberg's work was in the direction of coal tar derivatives from a purely scientific point of view. The manufacture of this new sweetening agent was started in Germany and a new industry created which grew in importance so that it was eventually considered a menace to the beet sugar industry of the Continent. The latter, of course, is of greater importance to continental countries from an economic point of view, and the new rival of beet sugar was, therefore, discriminated against by laws which prohibited the use of this sweetening substance as a substitute for sugar, permitting its employment solely for medical purposes, the Governments of Germany and Italy going so far as to prohibit the manufacture of the article itself. It was not prohibited because the article was injurious to health, but simply because of economic considerations. The importation into Germany being prohibited, it is interesting to note the accounts in the trade papers of the vast amount of smuggling from Switzerland into Germany. Incidentally this shows that notwithstanding the prohibition of saccharine in food, a large demand for it still exists, and I am told that it is used chiefly in the households for sweetening jellies, jams, preserves and similar products in place of the expensive beet sugar, rather than by the manufacturers of such products. I read an account in one of the trade journals recently, according to which it was observed for some time by the Customs authorities that an astoundingly large number of funeral parties crossed the Swiss frontier into the adjoining Grand Duchy of Baden—the explanation given being that the bodies were shipped into Germany in conformity with the wishes of the deceased to be buried in their native land. The number of funeral parties steadily growing in numbers, the Customs authorities finally had their suspicions aroused and ordered a casket to be opened. It was discovered that in place of the supposed corpse, the casket was filled with packages of saccharine!

THE CONTACT PROCESS FOR SULFURIC ACID.

The most far-reaching legislation ever enacted was that directed against the discharge of sulfurous acid fumes from ore smelters. With the increased output of these smelters, the volume of sulfurous acid discharged into the air became so large as to produce a most destructive effect upon vegetation. Laws were enacted in this country, as well as abroad, to the effect that unless the sulfurous acid fumes could be rendered harmless, the operation of these smelters would have to be stopped. The first attempts to convert them into a useful article were in the direction of compressing the gases into liquid sulfurous acid, which was used in the manufacture of glue and gelatine, but the amount of gas recovered from the furnaces grew so enormous that this outlet was not sufficient to take care of the supply. The attempts were then directed to oxidizing the sulfurous acid by means of the oxygen of the air for the production of sulfuric trioxide, following the re-action discovered by Clemens Wilkler. These efforts proved extremely successful, and works were soon established where SO_2 and finally sulfuric acid was generated from the waste sulfurous acid gases. In this manner a new process for manufacturing sulfuric acid was created, the so-called "contact process," which, in the course of time, thoroughly revolutionized a branch of chemical industry in which the old established chamber process had come to be considered impossible of improvement.

I am particularly pleased to be able to refer in this connection to the splendid work of our fellow member, Mr. J. B. Francis Herreshoff, whose contact process has proven so superior to that of the Badische Anilin and Sodafabrik in point of economy and simplicity of operation that it is now being introduced into Germany.

The utilization of the waste gases from smelters had the effect of producing cheap sulfuric acid in localities where it would have been impossible to produce it by any other

method. This had the most beneficial effect upon the development of the fertilizer industry in this country. Our southern states, principally Florida and Tennessee, furnish today the bulk of the world's requirements of phosphatic rock. Liebig showed us how this insoluble phosphorus could be converted into a soluble form by a treatment with sulfuric acid, and for this purpose alone over 3,000,000 tons of acid are used per annum.

The contact process, in turn, was responsible for the successful commercial production of synthetic indigo. The most successful method of producing it is a combination of methods suggested independently of each other, and consists in the following steps:

1. Naphthalene to phthalic acid.
2. Phthalic acid anhydride to phthalic imide.
3. Phthalic imide to anthranilic acid.
4. Anthranilic acid to phenylglycin ortho carbonic acid.
5. Phenylglycin ortho carbonic acid to indigo.

The greatest problem was the production of phthalic acid. Heretofore it had been obtained through the oxidation of naphthalene by chromic acid. The latter, however, was very expensive and this method did not hold out much hope of commercial success. E. Sapper, a chemist engaged in experiments to reduce the cost of production of phthalic acid, conceived a new process of making it by heating naphthalene with highly concentrated fuming sulfuric acid. After years of experimenting, a suitable method was found in the discovery of which Accident, the patron saint of the inventor, played an important role. It was discovered that the addition of mercury to the solution of naphthalene in fuming sulfuric acid facilitated the re-action and resulted in an almost theoretical yield. We must bear in mind, however, that the commercial success of synthetic indigo was influenced, to a large extent, by the fact that the SO_2 generated by the process of heating naphthalene with sulfuric acid could be re-converted into SO_3 by the contact process. Even ten years ago one single establishment engaged in the manufacture of synthetic indigo re-converted into SO_3 40,000 tons per year of sulfurous acid obtained in the manufacture of phthalic acid.

Thus we have seen that through the instrumentality of the law, a chemical process was introduced into metallurgical establishments, the contact process was created, a cheap supply of sulfuric acid was secured which, in turn, proved a blessing to agricultural interests through the production of a cheap fertilizing material, and finally it made possible the commercial exploitation of one of the finest achievements of scientific effort—the production of synthetic indigo.

POLLUTION OF STREAMS.

Another impetus was given to chemical industries by laws aimed at stopping the contamination and pollution of rivers and other waters. Before the value of by-products was understood by manufacturers, the rivers and water-ways in general were used as the most convenient and inexpensive way of removing offal and waste of all kinds from the factory. It is not difficult to understand the results from such abuse of natural water courses. The communities deriving their supply of drinking water from these sources were especially affected by it; the water, deprived of its natural content of oxygen, caused the death of the fish habitating these waters and the odor produced by the decomposition of this offal brought much discomfort to the people living within the vicinity of such streams. It was a condition of which the Legislatures were compelled to take cognizance, and the inevitable result was the prohibition of such use of the streams. This legislation proved disastrous to many industries but it proved of the greatest benefit to a far larger number. Among others, it affected beneficially all the industries connected with fermentation and those connected with the manufacture of starch from various raw materials. The materials recovered from the waste of these industries were converted into dry form, serving, in most instances, for the feeding of cattle and live stock. Such feeds are those produced from the starch works, distilleries and breweries, and they rank among the most valuable concentrated feeding-stuffs. They are indispensable for the rational feeding of live stock, which, together with wheat, form the principal means of sustenance of mankind. The production in this country of feed-stuffs from the manufacture of starch alone amounts to over 300,000 tons per year, and since these feed-stuffs sell at approximately \$25 per ton, the revenue obtained from this source amounts to \$7,500,000 per annum.

In former years, it was customary to allow the germs of the corn to go to waste, but today the industry recovers about 75,000,000 pounds of oil per year, which is sold in the markets of the world at about \$4,500,000. The corn solubles

—the so-called steep water—are now recovered to the extent of 100,000,000 pounds a year, which are sold also in the world's markets at over \$1,000,000. The by-products recovered from distilleries and breweries in this country may be said to be worth about \$5,000,000 per year.

OLEOMARGARINE.

One of the most prolific sources of legislation is oleomargarine. Laws have been enacted in many states aimed at the destruction of this industry, as for instance the oleomargarine laws of Pennsylvania and New Hampshire, which required that no oleomargarine should be sold in those states unless it were colored pink. Yet, in spite of these restrictive, if not prohibitive, laws, this industry has prospered, simply because of the underlying merit of the product itself. This is well illustrated by the fact that the receipts of the internal revenue office from the tax on oleomargarine amounted to \$1,259,987.65 during the fiscal year ending June 30, 1913. This subject furnishes a most interesting sidelight on the incongruities of laws. The artificial coloring of natural butter is permitted by a special act of Congress, even though the butter color used at the time of the enactment of this law would not be permitted today under the Federal Food & Drugs Act because of its injurious character.

The artificial coloring of oleomargarine, however, is not permitted, because such practice would make it an imitation of butter. If, however, the producer of oleomargarine is willing to pay a tax of 10 cents per pound, he then acquires the right to put his "fraudulent" product upon the market and the government becomes his silent partner. Most of the oleomargarine is produced by the packers, but it is only one of a large number of chemical products manufactured by them. It is only a relatively short time since chemistry has entered the packing houses and it was not entirely a matter of choice that led to the entry of the chemist, but rather stern necessity, for the law had served notice upon the packers that a stop would soon be put to their practice of discharging their enormous putrefactive wastes into creeks and rivers. This could not be accomplished without the aid of the chemist and the chemical engineer. As a result of their work, the packers produce today not only meats, meat extracts and soups, but they manufacture lard, tallow, stearine and oleomargarine. They also produce soaps, candles and hydrogenated fats; in the manufacture of these products, they recover glycerine as a by-product. From the different parts of the animal, especially from the pancreas, the thyroid and the suprarenal glands, therapeutic agents of great medicinal value are obtained. From the stomachs of hogs pepsin is produced and the use of the latter has been greatly increased within recent years by the clever discovery of two brother chemists, the Messrs. Wallerstein of this city, that beer of absolute chill-proof quality is obtained by the use of pepsin. The governing thought of their invention lay in the desire to keep in colloidal solution those albuminoid substances which could not be separated during the process of refrigeration; the use of a minute quantity of pepsin makes this possible.

Further by-products of the packing-houses are glue and gelatine, both products of great importance, particularly in view of the universal shortage all over the world of glue stock, and the correspondingly high prices prevailing for these products. The bones of the slaughtered animals are charred for the preparation of bone-black, which, as you know, is a valuable filtering and refining material. In other departments of the packing plants brushes are made from the bristles of the hogs. The hair is also recovered and the skins and hides go to the tanneries to be converted into leather. What is left is placed on the market as fertilizing materials, as for instance, dried blood and tankage.

Viewing these remarkable results, it is obvious that there is hardly any necessity of further legislation concerning the disposition of offal from the packing plants.

PAPER AND PULP INDUSTRIES.

Other industries directly affected by legislation prohibiting the pollution of streams are the paper and pulp industries. Here, however, the problem of a satisfactory disposition of the objectionable materials offers greater difficulties than in most of the other industries. Some of the waste material is recovered through mechanical separators, but most of it still goes to waste, and this has resulted in the closing by law of a number of plants. A beginning towards recovery has been made through the Mueller-Kestner process whereby the spent sulfite liquors are neutralized and then concentrated in a vacuum system. The liquid thus obtained is used principally for laying dust on roads in the same manner as petroleum oils are used in this country. In Sweden attempts are being made to produce ethyl alcohol from sulfite-liquors and the results are claimed to be quite satisfactory, but while these

are steps in the right direction, the great problem affecting these industries still remains unsolved.

ETHYL ALCOHOL FROM LUMBER WASTE.

In this connection, I do not think it amiss to point out another incongruity of laws as enforced in various countries and the discrimination shown against certain products. One of the greatest wastes in this country is that of the lumber industry. The waste in that particular industry is appalling and when we recall the strenuous efforts towards conservation of our natural resources, one stands aghast at the wanton waste still going on in that industry, for wherever you see a lumber mill of large capacity, you will invariably find a burner installed where such wood waste as cannot be used in the production of steam is incinerated, and millions of dollars worth of material escapes unused into the air in the form of gases. During the last years an industry has been started in this country based upon the original discovery of Classen that cellulosic materials may be converted into reducing sugars, from which ethyl alcohol may be produced. There is only one plant in operation thus far, but the results obtained seem to indicate that this new method of producing ethyl alcohol is commercially feasible and lucrative. The cash capital invested in this plant amounts to \$1,000,000. The product obtained is of the very highest grade, practically free from fusel oils and surpassing that produced in grain distilleries, yet the most natural outlet for ethyl alcohol is closed to this industry, because our laws provide that only grain distilled spirits may be used in the compounding of whiskeys. In Canada, however, no such restrictive legislation exists because there the law simply provides that ethyl alcohol may be used, irrespective of its source. It would not be surprising, therefore, if the development of this new industry should prove speedier in Canada than in this country.

FERTILIZER INDUSTRY.

Of much interest to chemists is a bill recently introduced in Congress by Representative Falson, of North Carolina, providing for an appropriation of \$400,000 to enable the Department of Agriculture to procure economical methods for the production of artificial fertilizers by means of electricity. It would seem that official circles have taken cognizance of the fact that saltpetre deposits in Chile are not far from complete exhaustion, and that our lawmakers have arrived at the conclusion that they can rely upon the chemist to meet the situation—producing in place of saltpetre a cheap nitrogenous fertilizing material which can be secured in unlimited quantities.

You all know that the utilization of nitrogen from the air by the combination of nitrogen and oxygen of the atmosphere with the formation of nitric acid is an accomplished fact, and is brought about either through the medium of the electric arc and the silent electric discharge, or under the influence of high electric tension. In the form of a new chemical compound, called calcium cyanamide, which is produced by combining nitrogen from the air with calcium carbide, a plant food is obtained which, as a fertilizing agent, is as efficient as Chile saltpetre or ammonium sulfate. The production of these substances from atmospheric nitrogen will, therefore, remove the anxiety of many writers on economics concerning the difficulty of feeding an ever-increasing population, owing to the gradual exhaustion of the soil.

SYNTHETIC PRODUCTION OF NITRIC ACID.

Since nitric acid is also used largely for nitrating glycerin, cotton and cellulose, and since these nitrated products are the principal constituents of the smokeless powder and high explosives used by the armies and navies of the world, it is apparent that aside from its importance from economic considerations, a process of making nitric acid independently of Chile saltpetre will become of extreme importance in case of war, for it removes the danger of being cut off from the supply of Chile saltpetre by a hostile navy. As yet, the principal production of nitric acid from atmospheric nitrogen is centered in Norway, because that country has natural water power of a tremendous magnitude, with the further advantage of being located within easy reach of the principal markets abroad. Even in Norway, however, restrictions have been placed by law upon this new industry—the law providing that only citizens of Norway may be engaged in the exploitation of these natural water powers. This caused the severance from the Norway enterprise of Dr. Schoenherr, one of the pioneers of this new industry.

CONCLUSION.

The time at my disposal does not permit the enumeration of all that has been accomplished in the utilization of industrial wastes through the compelling force of legislation. The aniline industry, the production of sulfate of ammonia from gas residues, of copperas from pickling liquors in steel and

wire works, of copper zinc and nickel from plating works, of fats and soaps from textile mills, and the products obtained in the reduction of garbage would all come under this heading. The last named subject alone is not only of the greatest importance and greatest interest, but in itself would suffice for a complete address. It is our good fortune to have been able to make an arrangement, largely through the coöperation of our fellow member, Dr. Maximilian Toch, to visit the garbage reduction plant on Barren Island, a courtesy which I understand has not been enjoyed by any other scientific or technical association. What I might say on the subject of garbage reduction, I am sure will be said in a much more comprehensive manner at the time of our visit to Barren Island, so that I believe I have your permission to leave the subject for the time being.

I believe I have shown that what may at first have seemed oppressive legislation actually developed into progressive legislation, and led to the building up of important chemical industries, which, in point of commercial value, as well as in point of direct benefit to mankind, rank second to none. And now when fears are expressed regarding the commercial and industrial future of this country because of the present tendency to disband large industrial organizations and corporations, I believe the chemist has no cause for apprehension, for it is the chemist, first of all, who is sought in times of need. His services are appreciated all the more when competition calls for a greater exercise of scientific knowledge and of technical skill. This holds good even with respect to the effects of the new tariff. While the removal of a high protective tariff may bring hardships to certain industries, the ingenuity of the chemist and chemical engineer will assert itself and lead us to conditions possibly more equitable than they have been in the past. I believe that it will always be a case of history repeating itself, and I cannot see other than a most hopeful future for the chemical industries of this country.

SHORT OF FEED IN MISSOURI.

In an official report issued recently Secretary T. C. Wilson of the Missouri State Board of Agriculture says:

"Missouri farms show a shortage of all meat animals, but this scarcity of stock will go far toward relieving conditions brought about by a scant supply of feed. Seventy-one per cent of our crop correspondents report sufficient corn and other feeds to carry stock through an ordinary winter. Blue grass, in the opinion of most correspondents, was not permanently injured by the heat and drouth of the summer. The condition of pastures throughout the state is 76. There is now an abundance of stock water.

"In feeding, much corn will be supplemented by millstuffs, meal, 'cake,' mixed feeds and other similar products. It is estimated that the use of these feeds will show an increase of 40 per cent over a year ago, and 75 per cent over five years ago.

"Stock that was sold on account of feed or water shortage brought good prices, and in most instances the best had been retained."

Dr. Carl L. Alsberg and Dr. A. L. Winton of the bureau of chemistry have been elected honorary members of the Philadelphia College of Pharmacy.

Prof. Alexander Smith was to have assumed the duties of head of the department of chemistry in Princeton University in the fall. By consent of both parties Prof. Smith's acceptance of the position has been withdrawn and he will remain at Columbia University.

R. A. Fetzer, a graduate of Davidson and Clemson Colleges, has been appointed instructor in chemistry in the North Carolina College of Agriculture and Mechanic Arts.

The Chicago Section of the American Chemical Society has appointed the following committee to wait upon the mayor of Chicago and offer their services, gratis, as an aid in the solution of all chemical problems relative to city waste: Prof. Harry McCormack, professor of chemistry, Armour Institute, chairman; Mr. A. Lowenstein, chief chemist, Morris & Co.; Dr. J. H. Long, professor of chemistry, Northwestern University; Dr. Julius Stieglitz, director of university laboratories, Chicago University; Mr. William Brady, chief chemist, Illinois Steel Co.

Mr. Warwick M. Hough of St. Louis has sailed for the Orient, where he will remain some time.

Restaurant Keepers Must Tell the Truth

FOOD COMMISSIONERS OF WASHINGTON,
IDAHO AND OREGON AGREE UPON RULES

Eating houses serving chicory in coffee must display a conspicuous sign saying so.

Cider vinegar must not be diluted, and all vinegars must be branded with their true name.

Catsup or sauce bottles must not be refilled.

Soda fountains using benzoate of soda must inform the public by means of large cards.

Flavoring extracts must be labeled "imitation" unless made of the true product.

A pound of butter must weigh 16 ounces net.

FOOD, drug and dairy commissioners of Washington, Idaho and Oregon held a conference recently relative to a standardization of the pure food laws of the different states.

Those attending were James J. Wallis, pure food and sanitary commissioner of Idaho; J. J. Higgins, assistant commissioner of agriculture of Washington, in charge of food, drug and dairy products, and J. D. Mickle, state food and dairy commissioner of Oregon, who lately has come into considerable prominence through his inspection of imported New Zealand butter.

The commissioners agreed that they would communicate immediately with their respective congressional delegations and urge them to support Congressman Addison T. Smith of Idaho, who has appealed to the federal department of justice, asking that special representatives be sent to the western states to investigate the operation of an alleged creamery trust, which, it is said, is endeavoring to put the independent operative creameries out of business. Charging that the discriminatory tactics being employed by the "trust" already are being felt by the dairymen, the Idaho State Dairymen's Association has taken the matter up.

Much time was devoted to agreeing upon a plan of co-operation so that food manufacturers might do business in the western states without having to make different standards of products and different labels to meet the conflicting laws.

Commissioner Wallis, who is president of the national association of state and federal food, dairy and drug officials, has been one of the hardest fighters for this uniformity and co-operation, and now that he has the signed up agreement of Commissioners Higgins and Mickle, representing Washington and Oregon, he is going to Salt Lake City, Utah, where he will meet the commissioners of Wyoming, Utah, Colorado and California. He will take this agreement with him, and feels confident that these officials will agree to its terms. It then will be presented to the commissioners of the middle states and other food executives.

Following are the food products and the conclusions which the commissioners have reached:

"Apple cider vinegars must not be diluted, and any effort to change the strength will be prosecuted. No prosecution will be instituted where cider vinegars show an acetic acid strength of 4 per cent. Distilled vinegars must contain no added coloring matter to deceive the people into believing it is cider vinegar. All vinegars must be branded with the true name and the name of the substance or substances from which it is made.

"The term 'salad oil' can only be applied to 'olive oil.' Other edible oils may be sold, but must be labeled as 'cottonseed salad oil,' or 'peanut salad oil,' when intended for salad purposes and in the same size type.

"No oil, other than olive oil, can be sold as 'sweet oil,' no matter what form of labeling is adopted.

"Vanilla extract shall be made of the true vanilla bean. A preparation made from artificial vanillin must be labeled 'imitation vanilla flavor.' Extracts made from vanilla and tonka beans shall be labeled 'extract of vanilla and tonka.' The words 'imitation' and 'artificial' must be in as large size type as any used on the label. No extract shall be called 'vanilla extract' except that made exclusively from the vanilla bean and alcohol, with or without sugar.

"Extracts not made from the fruit, berry or bean, and are made artificially, such as is the case with raspberry, strawberry, pineapple and banana, shall be labeled 'artificial flavor' in the same size type as the name of the product. The same information shall be given on the bottle as on the carton.

"Lemon extract shall be true to name and shall contain not

less than 5 per cent by volume of oil of lemon. All other lemon extracts shall be sold as 'imitation,' and shall be distinctly labeled as such.

"'Compound lard' or 'lard compound' shall have printed on the main label in large, heavy gothic type the names and percentages of the ingredients of which it is made. All other lard substitutes shall be labeled 'imitation lard,' and need not have the names of the ingredients, but the name 'imitation' shall appear above the word 'lard' in the same size type.

"Tomato catsup shall be the product of clean, ripe, whole tomatoes, with no added coloring matter, and no starch or other filler shall be used.

"The use of saccharine in any food product in any quantity will be prosecuted.

"If chicory is served in coffee in any eating house, dining-room or restaurant, that fact must be disclosed to the public by means of posting large printed placards in conspicuous places where same is served.

"Where benzoate of soda is used in syrups or fruit juices at soda fountains the public must be informed by large cards hung on the soda fountain, on which must be printed the information in large type so as to be easily read.

"Refilling catsup or sauce bottles or cans or dishes with a different product of a similar nature than they contained originally without removing the label will be considered a violation of law. Having on the table will be evidence of serving.

"Sardines put up wholly or in part in oil other than olive oil will be deemed to be misbranded unless the presence of such oil or oils is distinctly and legibly stated on the main label.

"Prosecutions will be instituted whenever butter is sold for a pound and does not weigh full 16 ounces net."—*Spokesman Review*.

QUALITY OF FOOD.

Dr. Carl L. Alsberg, chief of the Bureau of Chemistry, United States Department of Agriculture, discussed the food question quite elaborately in his recent address before the Philadelphia Produce Exchange. In part he said:

"Quality: What does this word mean when applied to food? Does it refer to wholesomeness, to nutritive value, to taste and flavor or simply to cost? The average man when he speaks of the quality of food may mean one or all of these, yet when we deal with the regulation of quality we must be quite sure what it is we mean by this word.

"There are clearly many ways of looking at quality in foods, but the food and drugs act does not distinguish between them. Olive oil to which has been added perfectly wholesome and nutritious cottonseed oil, vinegar which has been weakened with water, artificial flavoring extract, colored with a harmless color in imitation of an expensive flavoring extract, all these are adulterated under the food and drugs act unless labeled to show their true composition. Baking powder contaminated with a poison like lead, catsup made from decomposed tomatoes, milk bearing disease germs, these, too, are adulterated under the food and drugs act, no matter what the label.

"You will readily see that we deal here with two entirely different things. On the one hand, we have products to which wholesome and nutritious cheapeners or harmless fillers like water have been added; on the other hand we have products that are a serious menace to health. The former are violations of the food and drugs act which affect the consumer's pocketbook; but have nothing whatever to do with his health. They are violations that may be obviated by changing the label so that it tells the truth. The latter are violations of the act which affect the health of consumers.

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Oleomargarine Should Not Be Taxed

Under the existing law artificially colored Oleomargarine, tinted with the same harmless color used for coloring Butter is taxed 10c per pound; (uncolored Oleomargarine 1/4c per pound.)

Manufacturers of colored or uncolored oleomargarine, pay a Federal Revenue Tax of \$600 per year. Wholesale dealers pay \$480 for a license to sell the colored product, or \$200 for the uncolored. Retailers pay \$48 to sell colored Oleomargarine, or \$6 to sell the uncolored.

The amount of this tax comes out of the pocket of the consumer. Should it? Should the consumer, if he chooses to eat oleomargarine on his bread instead of butter, be compelled to pay at least 10c per pound additional for the yellow color if it is more tempting.

When the present oleomargarine law was passed it was claimed by the supporters of the legislation that the tax would prevent the sale of oleomargarine as butter.

The reports of the Collector of Internal Revenue show conclusively that the 10c per pound tax has been a great incentive for unscrupulous persons to buy uncolored oleomargarine, color it at practically no cost, and sell it for butter. Thus the law has fallen far short of accomplishing what was claimed for it, and has worked an un-

necessary hardship to oleomargarine manufacturers by throwing unjust suspicion of fraud, on them, and to consumers by compelling them to pay an exorbitant price as compared to the cost of production. Swift & Company have never sold or sanctioned the sale of oleomargarine as butter, but have sold their product on its own merits for just what it is—a perfect food product put up in plainly printed cartons.

Swift's Premium Oleomargarine is made in new sanitary factories open to the daily inspection of the general public and always in charge of U. S. Government Inspectors who pass on the quality and condition of all materials; see that everything is kept absolutely clean, and that every provision of the law governing the manufacture of oleomargarine and its sale by the manufacturers, is strictly complied with.

The 10c tax should be removed from colored oleomargarine at once, and a new law passed allowing the coloring of oleomargarine, any color or shade that is demanded by the consumer, and requiring that it be put up in plainly printed and securely sealed cartons of convenient retail sizes.

This would give the consumer perfect protection from fraud and an opportunity to buy an economical and tempting food product without paying an unjust tax.

Yet the food and drugs act classes them together. They are all adulterations.

"Since unfortunately the law does not distinguish between the two types of adulteration the public has been misled concerning the manner in which the law regulates quality. A food may be perfectly pure and yet be adulterated under the food and drugs act if it is sold under a fraudulent label.

"Now it is not enough to compel proper labeling of foods under the act. The consumer must be educated to understand the label. The consumer must be taught to read the label, and when he reads the label to understand it. The consumer must be taught not merely to buy with his eyes, but also with his intellect. He must be taught to consider nutritive values. If he can be taught to use his intellect as well as his eyes, our troubles with the artificial coloring of foods will largely disappear, and the confusion which exists in such products as oleomargarine and butter will be lessened. He must be taught real food values; that butter is perhaps the most expensive form of fat; that eggs are an expensive form of protein; that fish is a wholesome and cheap substitute for meat. At present he buys with his eyes and juries with his prejudices. Often quality, as understood by the consumer, has nothing whatever to do with food values or wholesomeness. It is a matter of taste and prejudice, of sentimental and esthetic values.

"Olive oil is no more nutritious or wholesome than cottonseed oil. Perhaps if the Romans had worked their German slaves in cotton fields instead of olive groves we might today prefer the taste of cottonseed oil to olive oil and regard the olive oil, not the cottonseed oil, the adulterant. Quality of foods to the average consumer, to a considerable extent, is a question of taste, prejudice and sentiment. We prefer butter; the Eskimo blubber.

"The progress of science is changing the entire food industry. It is transferring it from the home to the factory. We need a readjustment of our standards of quality. We should not regard as inferior all those things which are made in a way different from that our grandparents used; we must realize that the past generations lived through the winter on the most restricted diet—few green vegetables, but roots and tubers and little fresh meat. Scurvy was nothing unusual. The physician of today hardly ever sees this disease except in infants. There was a real reason in times past for spring medicine. Today, even in the depth of winter, the poor man can have a more varied diet than was possible for kings some centuries ago. All this we owe to the development of transportation, of sterilizing and canning, and of cold storage and drying; in short, to modern methods of handling all kinds of perishable products.

"If the consumer is to reap the full benefit, he must learn to readjust himself to buy his food with his brains on its real nutritive value. The average American citizen is quick enough to adopt the latest thing in clothes, in engineering, in luxuries. Manufacturers cannot turn out novelties fast enough for him but he is slow to change his habits and tastes in food matters. Unfortunately, the time is past when we can pick and choose our food. There is no longer superabundance. Stern necessity will compel us to change. The proper regulation of quality through food legislation will help but little if the consumer be not educated to pay less attention to sentimental values and not to be guided wholly by prejudice.

"I would be the last man to minimize the esthetic side of food and eating. There is firm physiological basis for the belief that appetizing food is better digested than unappetizing food. It can be shown experimentally in the laboratory that the mere sight and savor of food causes the gastric juice to pour forth into the stomach of dogs. There is a most intimate relation between the psychic and the digestive functions. It can be shown in the laboratory that fear and fright stop digestion. This unquestionably applies to man as well as to dogs. Nervous indigestion is a very real thing, as any physician will tell you, and so when we make a ceremony of our meals, when we arouse our anticipation by putting on good clothes and by decorating our tables, this is no mere affectation; it is applied physiology. We are unconsciously helping digestion with our nervous system. So the esthetic side of food and eating should, and must be considered; but it is not necessary to continue the taste and prejudice of past generations. Thus the growing scarcity of foods may, to some extent, be minimized and the development of new foods and new sources of food through the application of modern scientific methods, methods of the laboratory, of the cannery, and of the warehouse may be stimulated.

WELL MERITED PROMOTION.

H. E. Schuknecht, former assistant food commissioner of Illinois, has recently been elected a member of the board of



H. E. SCHUCKNECHT.

directors of the Worcester Salt Co. of New York. Mr. Schuknecht was in the employ of this company before his appointment as assistant food commissioner by Governor Deneen in 1900 and when he left the food commission after a service of three years he re-entered the employ of the Worcester Salt Company as western manager.

Mr. Schuknecht is one of the best informed men in the country on all matters pertaining to dairies and dairy products. He was raised on a dairy farm in Iowa, going

later to Minnesota, where he learned more of butter-making in a creamery. He joined the staff of Chicago dairy produce, and then studied dairy science at Madison, Wis., University returning to take up practical creamery work.

Mr. Schuknecht was first in America to take up and make a success of pasteurized cream on a commercial basis.

Inasmuch as Mr. Schuknecht has been successful in the various fields he has occupied in the past it is safe to predict that in his new position he will fill all the requirements of the place he occupies.

EPITOME OF STATE LIQUOR LAWS.

The Criterion Publishing Co., of Chicago, has recently got out Midas epitome of all liquor laws of every state in the Union, including special Federal laws affecting the liquor interests. This work, exhaustive in its character, enables a business man or his attorney to find at a glance the laws directly applicable to any special case.

The index, which has been prepared with special care, makes it possible to secure with ease and certainty the special information required on any of the following subjects: Transportation of liquor C. O. D.; shipments; interstate commerce; local option laws; soliciting orders; special restrictions on business; pure food laws; branding goods for shipment; warehouse receipt laws; sale on credit license provisions; transfer of license; place of sale; sale by social clubs; sale by druggists, and all other subjects affecting the liquor interests. The work is so arranged that the epitome may be kept up to date by adding addenda containing new state or federal laws that may be enacted. The book has been arranged under the direction of Arthur Wallace, general counsel and manager of *Midas Criterion* legal department. For liquor handlers and dealers the book would appear to be indispensable.

FEDERAL APPOINTMENTS.

The following chemists have been appointed by the Department of Agriculture since December 1, 1913: Charles F. Whitney, Vermont, chemist, Board of Health, Burlington, Vt.; J. C. Johnstone, Illinois, state analyst, Chicago, Ill.; successors to H. L. Thomson and T. J. Bryan.

Mr. J. J. Higgins, deputy commissioner of foods, feeds, fertilizers, drugs, etc., State Department of Agriculture, Olympia, Wash., has been appointed as commissioned state official of the Department of Agriculture in the state of Washington, succeeding Mr. L. Davies, the former state dairy and food commissioner.

Prof. L. E. Sayre, University of Kansas, Lawrence, Kan., collaborating chemist; J. E. Mastin, agricultural experiment station, Lexington, Ky., collaborating chemist; H. E. Wiedeman, 1105 Holland Bldg., succeeds Prof. P. F. Trowbridge, collaborating chemist; W. F. Hand, agricultural and mechanical college, Mississippi, collaborating chemist.

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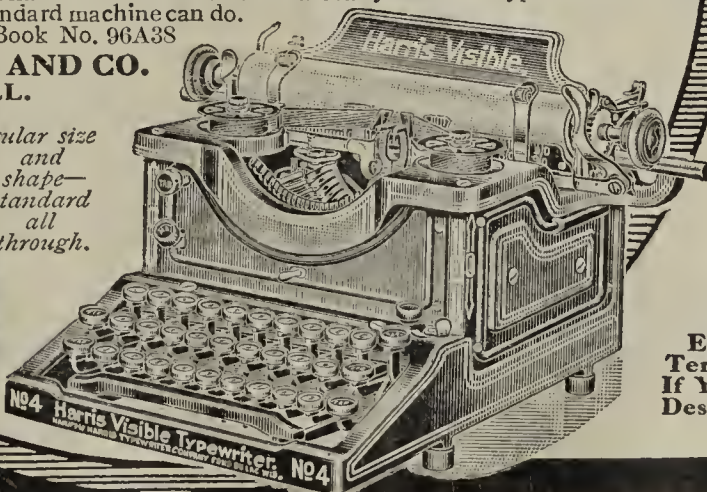
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Weighting Chickens with Sand

NEW YORK CONSUMERS BUY LARGE
QUANTITIES OF SAND AT CHICKEN PRICES

FROM 150,000 to 300,000 pounds of sand and rock and other weighty material are sold weekly to New York people in poultry, according to the Greater New York Live Poultry Dealers' Protective Association. As a result of this practice, Abraham Loewenstein, secretary of this association, E. B. Goodman, special investigator, and Herman Fleck, an inspector of the association, appeared before the Office of Markets and asked that the Department of Agriculture take steps to stop this practice among shippers of live poultry.

The representatives of the association brought with them a large number of chickens which had been sanded and otherwise stuffed by special feeding to add to their market weight. They also brought samples of the sanded food obtained from the actual car in which the chickens were shipped. This weighting food consisted of a paste, composed of two handfuls of wheat middlings, one handful of sand and coarse gravel and one handful of meal. According to these men, the chickens are stuffed for 24 hours before the time of their arrival in New York City. Two or three hours before they are sold this paste, made up of sand, stone and gravel, is fed to them. The chickens eat it greedily, and it is of such a nature that when it goes into the crop it forms a plastic-like mass that cannot be digested for several days. It acts in such a way that the chicken then cannot eat normal food and consequently loses weight from starvation while it is kept by those who buy it from the shipper.

Several of the chickens shown had crops as large as a good sized orange, which showed plainly under the neck after they were dressed. These crops, however, do not show so plainly before the feathers are picked, and these chickens are sold usually unpicked and then slaughtered. In the case of one small chicken the crop was found to contain sand and large stones running up to three-fourths of an inch in length and weighed eight ounces. Of these eight ounces not more than three ounces could be charged to the legitimate weight of the chicken's crop, as it was a small bird, weighing with the overloaded crop only about two and one-half pounds; five ounces was pure weighting to add to the selling price of the chicken. When it was dressed it was found that it weighed only two pounds two ounces, net, so that there was weighting of about 15 per cent of the undressed chicken.

Some of the chickens were so weighted and with such distended crops that the poultry dealers said that when they were alive they had to bend their heads over on account of the weight.

According to the poultrymen, the weekly shipment of live chickens to New York ranges from one million to two million pounds and all of these are weighted just before being sold to the New York middlemen. Indications are that this feeding adds an illegitimate weight amounting to 15 per cent of the total weight of the chicken, so that 150,000 to 300,000 pounds of sand, gravel and artificial stuffing which has no

food value unloaded weekly on the New York consumer.

The poultrymen's protective association state that they are forced to take the chickens as they come and sell them, but that there is loss and no profit to them from the weighting. The Jewish and Italian women and the Chinese, who are the chief buyers of live chickens, have grown wise to the practice, and require the poultryman to make concessions in the case of chickens with prominent crops. Those who are not wise to the practice buy the chickens and suffer the loss of all added material. In addition, the poultrymen state, that as they have to keep the stuffed chickens alive for several days and the chickens cannot eat owing to the solid mass in their crops, they lose all falling off in weight of the chicken.

The practice is possible in New York for the reason that New York is the only city which has no regulation prohibiting the feeding of chickens within 24 hours before they are sold for killing. The poultrymen, however, believe that shippers should be prohibited from using this sand, gravel and food paste even prior to 24 hours, because it weights the chicken and causes loss in net weight while it is being kept for killing.

To stop these practices the poultrymen's association state that they have, in connection with the Humane Society, caused five persons engaged in weighting poultry in New York railroad yards to be brought before magistrates by the Cruelty to Animals Association. Of these three have been held for special sessions and two have asked for adjournment. One arrest was made in Hudson County for similar practices in the New Jersey railroad yards, and the justice of the peace in Hoboken fined him \$100 and costs.

The Department of Agriculture has promised to investigate this matter and also to take up the question of proper feeding of chickens in transit. In this work the Office of Markets and the Division of Animal Husbandry will co-operate.

According to the United States Bureau of Fisheries, about 65 per cent of the value of oysters comes from the artificially propagated bivalves.



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Bacteria at Low Temperatures

FACTORS INFLUENCING THE SURVIVAL OF BACTERIA NEAR THE FREEZING POINT OF WATER

IT HAS been held by some bacteriologists that, while temperatures about the freezing point of water are less destructive of bacterial life than those about the boiling point, low temperatures are not only unfavorable to the growth and multiplication of bacteria, but also to their prolonged existence. Prudden's experiments (1887) with water suspensions of a staphylococcus, in tubes greased to prevent crystallization at the temperatures employed (15-25° F.), led him to believe that at the same temperature the destruction of bacteria, due to cold, was greater when the water did not freeze, than when it did. Park, however, made similar experiments (1900) with *B. typhosus* and found that at the same temperature the reduction was 30 per cent less in water remaining liquid for three days than where the water was frozen for the same length of time. Park further cites an experiment upon the freezing of typhoid bacilli in which 50 per cent to 70 per cent are killed "at the time," not more than 10 per cent surviving after one week and 1 per cent after four weeks, while Sedgwick and Winslow, after a careful review of the literature and many experiments, came to the conclusion that there is "during the first half hour of freezing a heavy reduction . . . amounting to perhaps 50 per cent. After this brief period of sudden but uncertain 'reduction' the destruction of the germs proceeds pretty regularly as a function of the time." Prescott and Winslow in their "Water Bacteriology" remark (p. 17) that "Temperature has a direct relation to bacterial life, and the number of parasitic bacteria at least may be quickly lessened by the action of cold." These conclusions are supported by the fact that ice, and especially old ice, even when formed from polluted sources, is very low in bacterial life.

On the other hand, it has gradually become known that various frozen foods, such as ice cream, frozen meat and frozen milk, often contain very large numbers of living bacteria, and this, too, even when kept for a long time, so that a serious contradiction seems here to exist between theory and fact. To this contradiction my attention was first drawn some two years ago during bacteriological studies of frozen eggs, and especially by the fact that such eggs, even after an exposure of many months to a temperature of 0° F., still contained millions of living bacteria. Obviously it was no longer possible to hold that either mere cold or time is in and of itself necessarily destructive of bacterial life; and in the hope of bringing theory more clearly into harmony with experience I have within the last year made numerous experiments calculated to throw further light upon the general behavior of bacteria at temperatures about the freezing point of water.

Thus far I have worked almost exclusively with a single species, *B. coli*, which, as is well known, thrives at various moderate temperatures and especially at the blood heat. I have employed chiefly a 24-hour agar growth suspended in water, in physiological salt solution, in various dilutions of fat-free milk, in various mixtures of pure glycerine and water, and in solutions of cane sugar and of commercial glucose. In some cases freezing was done directly in test tubes; in other cases in an ice cream freezer with the formation of an ice "mush" or magma. By the courtesy of the Quincy Market Cold Storage and Warehouse Company of Boston I have been able to hold the suspensions thus frozen at temperatures as low as zero F. for periods of from four to eight months. The experiments are still in progress and some of them may be extended over a term of years.

The following is a brief summary of results:

I. When *B. coli* are frozen in Boston tap water (in test-tubes) as solid ice, and held at -20° C., only a fraction of one per cent of the original number remain alive at the end of five days. Storage of a few weeks results in complete destruction of the bacteria. These results confirm those of Sedgwick and Winslow.

II. When *B. coli* are frozen in Boston tap water not solidly, but as a water ice or sherbet is frozen, and held in this condition at -20° C., a large percentage remain alive for many months.

III. When *B. coli* are frozen in milk, pure and diluted to various degrees with water, the death rate of *B. coli* increases with the dilution, the largest numbers surviving in the un-

diluted milk and the fewest in that containing the most water.

IV. When suspended in aqueous mixtures containing from 5 per cent to 42 per cent of chemically pure glycerine and held at -20° C., a very large percentage of *B. coli* remain alive for at least six months.

V. At +37° C., *B. coli* in water, or in 5 per cent to 20 per cent glycerine² die rapidly, few if any remaining alive at the end of 72 hours. The death rate diminishes as the holding temperature is lowered, though it is still marked even just above 0° C.; but at a temperature slightly lower a sudden change appears, the death rate at and below that point being but little, if any, greater than at -20° C.

VI. By covering a 24-hour growth on agar with a sterile 10 per cent cane sugar solution, and holding at -10° C., stock cultures of *B. subtilis*, *B. aurococcus*, *B. megaterium*, *B. fluorens*, *B. proteus* and *Sarcina aurantiacus* have been kept in a vigorous condition (without transferring) for eight months.

From these results the following conclusions may be drawn:

Low temperatures alone do not destroy bacteria. On the contrary, they appear to favor bacterial longevity doubtless by diminishing destructive metabolism. Frozen food materials, such as ice cream, milk and egg substance, favor the existence of bacteria at low temperatures, not because they are foods, but apparently because they furnish physical conditions somehow protective of the bacteria.

It seems likely that water-bearing food materials as well as sugar solutions, glycerine solutions, etc., freeze in such a way that most of the bacteria present are extruded from the water crystals with other non-aqueous matters (including air) and lie in or among these matters without being crushed or otherwise injured; while in more purely watery suspensions, and, above all, in water itself in which the whole mass becomes solidly crystalline, they have no similar refuge but are perhaps caught and ultimately mechanically destroyed between the growing crystals. This theory would explain the absence of live bacteria in clear ice, their comparative abundance in "snow" ice and "bubbly" ice, and also the fact that the more watery food materials when frozen contain the fewest, and the least watery the most, living bacteria.

The comparatively rapid death of bacteria in non-nutrient materials at higher temperatures and their slower dying at lower temperatures agrees well with the theory of simple starvation or destructive metabolism. At the higher temperatures they perish quickly because they burn themselves out quickly; at the lower, more slowly, because they consume themselves more slowly. At temperatures where metabolism ceases altogether they continue to exist in a state of suspended vitality similar to that exhibited by many other and higher plants which in the far north are subjected without apparent injury for long periods to temperatures much below the freezing point of water.—*Science*.

S. C. KEITH, JR.

MASSACHUSETTS INSTITUTE OF TECHNOLOGY.

²Glycerine mixtures much exceeding 20 per cent, at temperatures above the freezing point of water, act as mild antiseptics. Under 20 per cent this is not the case, the death of the bacteria apparently resulting from lack of food, as it does not occur when a small amount of peptone is present.

A. P. Sandles of the Ohio Division of Agriculture says: "The Ohio feedstuffs law exempts from license liability wheat bran when sold as a separate and distinct article of commerce and when it is the coarse outer coating of the wheat berry. The stenciling of goods shipped into or sold within the state with the following designation would, in our opinion, subject same to license liability as well as to state inspection: 'Wheat bran with ground screenings not exceeding mill run'; 'wheat standard middlings with ground screenings not exceeding mill run'; 'wheat flour middlings with ground screenings not exceeding mill run'; 'wheat mixed feed with ground screenings not exceeding mill run.' We recognize that this ruling would necessitate payment of license fees by many firms which heretofore used screenings in wheat bran without detection. We cannot, in view of the labeling 'ground screenings not exceeding mill run,' put any other construction upon the law than that product is not, legally, pure wheat bran."

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THE AMERICAN FOOD JOURNAL

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CHICAGO, ILL.



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VOLUME IX.

MARCH, 1914.

NUMBER 3.

Being Charitable at Another's Expense

IT IS so easy for many people to be charitable at the expense of others; so hard for them to give away their own money.

Just now this type of people—men and women of good intent—are very busy promoting the sale of food products at cost. It is a charitable undertaking, but the charity is forced out of men who are doing a legitimate business in order to make a living for themselves and families. These men who operate grocery stores ask no charity of private or public institutions. They ask only the right to do business in order that they themselves and their dependents shall not be obliged to seek charity from any one.

To earn a living is a noble purpose. To prevent a man from doing this under the guise of doing charity to others is not good for charity or business.

We are running very much to economic fads. We get all wrought up over the high cost of food products, and then we go out into the commercial world and try to put a few hard working grocers out of business in the name of charity. Municipal and county markets or retail stores where goods are sold at costs have a vogue just now. Some of the managers and promoters of these institutions count them a great success, because a certain class of people are enabled to get food products at a low price.

If this class of people are to be treated as unfortunate beings, worthy of the charity of those in better circumstances, in the name of fair play to business, let them have charity without doing serious injury to those who are willing and able to care for themselves and their families.

The municipal grocery store or market is at best a product of socialism, and not the best product of that cult either. If we are to become socialists in the management of municipal affairs let us go farther than setting afoot a few cheap stores. Let us not put a few retail merchants out of business and make them objects of charity. Rather let the good people who believe in this new doctrine of charity buy out the

retail merchants at a fair price and maintain stores all over the city.

For one thing the promoters of these new fangled charitable institutions proceed upon the theory that the middleman is not necessary and the retail grocer and butcher mark their goods too high. They might learn that the middleman occupies a proper place in our system of distributing food products, and that the retail grocer and the retail butcher sell their goods at such a close margin of profit they are compelled to work long days in order to make both ends meet. The retailer, considering his capital invested and the amount of hard work he does receives small remuneration for his services. And he should not be harassed and driven out of business by a competition that rests upon charity.

No retail grocer or butcher can long maintain his business in a neighborhood where one of these charitable stores are in operation. Sooner or later he will be in a fair way to become an object of charity himself. Legitimate business of all kinds should be protected.

In another important respect the municipal store that sells goods at cost does great injury to legitimate business. It presents the idea to the consumer that the retail merchant charges an unwarranted price for his goods. This is emphasized when the municipal store sells inferior goods. The retail price of these goods when put along side of the legitimate retailer's price for goods of superior quality makes it appear that the average retailer is getting a great deal more profit on his goods than he should get. This creates discontent and ill-feeling among consumers and does the retailer a real injustice.

The retail merchants are justified in the complaints they are making against the treatment they are receiving at the hands of public officials. The jobber and manufacturer complain too, for it does them harm to have the price of their goods slaughtered, even when it is done in the name of charity.

EDUCATION AND FORCE.

WE are as a nation awakening to the fact that most of our troubles as a people grow largely out of the fact that we do not know. And then we are learning the other important truth that we are creatures of habit, hard to coax or drive out of the rut in which we have long traveled.

And so the wisest of our public spirited men and women are saving the energy that formerly was largely wasted in trying to educate mature people up to a new and better order of things. This lost motion of the past is now being conserved by applying it to a rising generation. In other words it is becoming the fashion to educate the young to give them the right habit, so that when they come to maturity they will naturally move in the new way without being coaxed or forced.

Our pure food commissioners have got this new idea well fixed in their minds and what is more to the purpose some of them are putting it into execution. Already there are several campaigns under way having for their object the teaching of high school boys and girls the importance of better sanitation and better food. These boys and girls will leave school this year, and later. They will take into their homes in the meantime the doctrine of pure food and sanitation. They will at a later day practice in their own home what they learned in school. They will by their own example spread the doctrine among those who were so unfortunate as not to have received an education such as they received.

When the present day high school boys and girls grow to maturity they will need no policeman to compel their attention to sanitation and pure food. They will acquire the habit of giving these things proper attention because they have learned the importance of doing so.

Police regulation is necessary in the pure food field just as it is necessary in other fields, but it is very difficult to compel people to do that which they do not want to do. On the other hand where people have been educated into the habit of doing the right thing they do such things as a matter of preference. The desire to do the opposite thing is lacking.

If we take into account the cost to the state of a five-year educational campaign and a campaign of force for a like period, the educational plan will be found the cheaper as well as better. It may cost more for a single year, and it may be barren of results for a time. But at the end of so long a period as five years the result will stand out as boldly for pure food and sanitation as it will for other forms of education.

Our public schools are maintained at great cost because we believe a public school education is essential to good citizenship. We believe it pays to maintain public schools.

At a small additional cost to the state the cause of pure food can be promoted in our public schools. Those of our food commissioners who realize this and are acting upon the idea deserve well at the hands of the people at large. They may not be able to show immediate results, but their work of today will stand out boldly to their credit in the years to come.

What the people want is pure food and the method by which this result is gained will in the end be the most popular.

NEW CHIEFS OF INSPECTION DIVISIONS.

REORGANIZATION of food control forces at Washington, D. C., looking to more efficient operation of the various departments of activity coming under this general head, is going on gradually and results will doubtless prove the wisdom of the changes that are being made. As announced in the February number of *THE AMERICAN FOOD JOURNAL* in line with the efforts to secure greater coherence and more economical and vigorous work, the division of inspection has been abolished, and inspection work from now on will be conducted from three different centers, Washington, Chicago and San Francisco.

The men who have been placed in charge of these three divisions are as follows:

Walter G. Campbell, formerly chief food and drug inspector of the Bureau of Chemistry, chief of Eastern Inspection District, headquarters, Washington, D. C.

L. M. Tolman, formerly chief of the Food Inspection Laboratory, Bureau of Chemistry, chief of Central Inspection District, headquarters, Chicago, Ill.

R. B. Hart, formerly Chief of the Cincinnati Laboratory, of the Bureau of Chemistry, Chief of Western Inspection District, headquarters, San Francisco, Calif.

Each of these men is eminently qualified by education, training and long experience to fulfill the duties that will fall to them as chief of their respective inspection districts, and it can confidently be predicted that their work will prove efficient and creditable to themselves as well as the high office they hold.

On the cover page of this issue of *THE AMERICAN FOOD JOURNAL* we are showing half-tones of the new chiefs of inspection districts, and a brief outline of the connection these men have had with work of which especially fit them for the duties of their present official positions will be of interest.

WALTER G. CAMPBELL.

Walter G. Campbell, a native of Kentucky, was born in 1877. He secured his higher education at the Kentucky State University, graduating in 1901. Immediately upon receiving his diploma he was selected by his *alma mater* to a position in the Kentucky Agricultural Experiment Station. Two years later he entered the law school of the Louisville University, and while pursuing his course there became identified with the pure food work of that state.

After receiving his degree Mr. Campbell immediately began the practice of his profession in Louisville, maintaining continuously his connection with the state pure food work until 1907. In 1907 he was appointed as chief food and drug inspector in the Bureau of Chemistry, and held that position until the recent reorganization of the bureau under Dr. Alsberg, when, as stated above, he was made chief of the Eastern Inspection District.

L. M. TOLMAN.

L. M. Tolman, chief of the Central Inspection Division, was born at Brookfield, Vt., April 7, 1875. Mr. Tolman is a man of superior education, having graduated in 1896 from Pomona College, at Claremont, California, and in 1898 received the degree of Bachelor of Science at the University of California, Berkeley, Calif. During 1899 and 1900 he was chemist of the Board of Health, Oakland, California, and from 1900 to 1906 filled with distinction the office of assistant chemist in the Bureau of Chemistry in the

food division. He was next appointed chemist in the Bureau of Internal Revenue, Treasury Department, and in 1907 was made chief of Food Inspection Laboratory, Bureau of Chemistry, which position he held until his recent appointment to his present office.

Mr. Tolman is a prolific writer, and has written many articles for scientific publications, and in collaboration with other experts, is the author of numerous papers and bulletins published by the Department of Agriculture.

B. R. HART.

The youngest of three inspection chiefs, is B. R. Hart, head of the Western Inspection Division. Mr. Hart was born in Lexington, Kentucky, in 1880 and acquired his education in the educational institutions of that state. He graduated from the Kentucky State University in 1904 with the degree of B. S. and in 1906 as a result of further study was given the degree of M. S. In addition to pursuing his regular studies Mr. Hart found time for other duties and was during 1903 and 1904 assistant instructor in chemistry at the university where he was studying.

Mr. Hart began his official career in 1904 when he became assistant city chemist at St. Louis, Mo., occupying that position for two years. Later he was assistant food chemist at the Kentucky Experiment Station, under Dr. M. A. Scovell, holding that position until June, 1907, when he was appointed to a position in the Washington Food Laboratory, becoming thus identified with the Bureau of Chemistry.

In 1908 his ability was recognized as making him worthy of promotion and he was appointed to the office of chief of the Cincinnati Laboratory, Bureau of Chemistry. He filled that position from January, 1908, to December, 1913, and was upon the reorganization of the inspection work, made chief of the Western Inspection Division with headquarters at San Francisco.

With the inspection of the Bureau of Chemistry work under the direction of such able experts as these, men who are of broad gauge, liberal and progressive in their ideas and methods, the country is justified in the belief that this very important work will be well handled and resultful.

IMPORTANT ARTICLE ON INSPECTION.

THE AMERICAN FOOD JOURNAL is extremely gratified to be able to announce to its readers that arrangements have been made for the publication of a comprehensive article on "Inspection" as related to pure food work.

This article, the initial installment of which will appear in the March issue of this magazine, is from the pen of George B. Taylor, State Analyst of the Food and Drug Department of the Louisiana State Board of Health. Mr. Taylor is highly qualified to write on this subject, and in his article treats the theme on lines different from anything heretofore published.

The article, which will be in several installments, is designed to be especially helpful to general food and sanitary inspectors in their work. Each chapter is devoted to a special topic and the whole work, based as it is on actual experience, and covering the subject in a most comprehensive manner, will be of incalculable benefit to all who are interested in this department of food control work. We believe this to be one of the most valuable series of papers THE AMERICAN FOOD JOURNAL has ever printed.

NATIONAL FOOD TRADES CONFERENCE.

ONE of the most important meetings of food interests ever held took place in New York on February 27, when the National Food Trades Conference met in that city. The chief purpose of the conference, which is participated in by all of the leading food interests, officials, manufacturing and distributions, etc., is to take steps looking toward the furthering of the cause of uniform state laws on the basis of the National Food and Drugs Act.

In discussing the reasons for the above conference Charles Wesley Dunn, counsel for the National American Specialty Manufacturers' Association, under the sponsorship of which organization the conference was held, said:

"In the last analysis the interests of the consumer, the food trade and the officials enforcing the food laws are identical, and there appears to exist no reason why they should not co-operate to the common end. For the great majority of the food trade, honest and law abiding, the usual requirements written into the law are no more than their own standards voluntarily adopted. Food manufacture and distribution are a necessary part of commerce and the public interest is best served when that commerce is properly regulated and not hampered or obstructed by unnecessary burdens.

Uniformity demands a standard or model for such uniformity. A national law is, logically, such a standard or model. Some of the state laws have anticipated the national law by incorporating provisions which the national law did not include, but which it ought to have included. It is not desirable that a strong local law should be materially weakened for the mere sake of uniformity. The Federal law is not a perfect law, and it would be strange indeed if it were, however we might wish. But it has proven a most beneficent law and accomplished much in keeping from the channels of commerce injurious and unwholesome and fraudulently labeled products, and is gradually being strengthened as its weaknesses are demonstrated.

Representatives from more than two dozen prominent associations of food producing and distributing interests were present at the meeting.

Food interests of every class are thoroughly alive to the need for intelligent and concerted action in dealing with the live problems relative to their business, and such meetings as this conference cannot fail to be productive of valuable results.

PURE FOOD PROBLEMS IN SCHOOL.

THE domestic science department of the high school at St. Cloud, Minn., has added pure food as a subject. In addition to this house-sanitation will be studied. The subject of pure food will be considered under the head of foods and adulteration, nutrition value and cost, standard rations and cost, bacteria in milk, butter and its substitutes, meats and candies, preservation of food, fresh and canned vegetables, bread and cereals and spices and condimental foods.

Children under the process of development are very impressionable and impressions made upon the growing child last through life. The idea of selecting and preparing food in an economical and sanitary way becomes a habit that is lasting. We may teach grownup men and women the importance of pure food and sanitation and they will realize the importance of following out the teachings they have received. But somehow it is very difficult to get them into the habit of doing those things which they know they should do. Children easily get a habit that lasts.

DATE ON THE CAN.

FOR a number of years there has been a persistent effort made to injure the canned food business by compelling packers to put the date of packing on the can. Perhaps it is not true that the date mark advocates have urged their plan for the purpose of doing an important industry serious injury, but the dating scheme, if it shall be made into law, will have this effect without giving the consumer or any one else more than a theoretical benefit.

The advocates of a dating law proceed upon the theory that when the year rolls around any canned foods that are left over should be destroyed or dumped on the bargain counter to be "cleaned up" at less than cost.

Whatever view these people may have of the effect of the law they would pass in actual business the operation of the law would be to put a discount on all "last year's dated goods."

If it were a fact that canned foods twelve or eighteen months old were in any way inferior to goods fresh from the packer's factory, there might be some excuse for differentiating in favor of the new goods. But so far as any one knows there is practically no difference in the value of new or "yearling" canned foods. Those who are vitally interested in canned foods in a commercial way have made exhaustive experiments with old and new goods for the express purpose of learning the truth about their comparative value. So far no one has found any particular difference where the goods have been properly packed in the first instance and well cared for after they have gone into distribution.

New canned foods will deteriorate if they are not well handled, whereas canned foods several years old will be as fresh at the end of that time as they were when first put on the market if they have been given proper care.

But the average house wife does not know these facts.

She would be governed largely by the date on the label in making her selections under the operation of a date law. She would proceed on the simple theory that the new goods were "fresh" and the older goods more or less stale.

The mere fact that a date on the can was compelled by law would of itself raise a suspicion in the minds of consumers. They would decide at once that if the lawmakers in their wisdom (?) had not been certain as to the comparative value of the new and old goods they would not have caused the protecting law to be made.

It is quite probable that if a date line were forced on package coffee many consumers would buy the fresh coffee, although most people understand that coffee is improved with age.

It is not the question of age of canned foods that should concern the consumer. If the goods are well packed and well kept they will be just as wholesome at the end of two years as at the end of one year.

Should the date law go into effect, jobbers and manufacturers would be compelled to take back a lot of old goods when they put their new goods on the market. What they would do with them would be a problem. They might relabel them or they might have them made over or they might sell them at a sacrifice. In any event there would be an additional cost for service, etc., which the consumer would be compelled to pay. This is certain for all canned foods are now

sold on such a small margin of profit that any extra cost the dating law would compel would have to be added to the consumers' cost of the goods.

In view of the fact that the date law would do no real good but would work a harm, the burden of which would finally fall on the consumer, it were better to keep a date law for canned foods off our statute books.

CRUSADE FOR BETTER MILK.

IT LOOKS very much as if we are to have better milk. Governor Dunne stirred up some of the milk producers when he issued his proclamation barring tubercular cattle from the state. The cattle buyers feel that the governor has injured their business, inasmuch as it will be no longer possible to buy condemned cattle in other states and sell them in Illinois at a great profit. Some of the milk producers, too, are wroth because they will no longer be able to buy cheap cows condemned elsewhere, to put into their dairy herd.

But all the dairymen are not against the new order of things. The state association at a meeting recently held passed resolutions in favor of the proclamation against tubercular cattle.

The great body of the people of the state are learning the truth about the outrageous importation of diseased cattle into the state and they are highly in favor of the new order of things.

This publication took up the matter last summer and persistently advocated sound cattle and better dairy conditions. Since that time there appears to have been an awakening all over the country and food officials are out on a campaign for better milk, working harmoniously with municipal health bodies to accomplish their purpose. Better cows are demanded to begin with. Better stables, better care of cattle, better food, better care of milk and better means of distribution are the things that are being looked after now in many states of the union. Before another year has gone dealers in cattle and milk will have got into the habit of doing things in the new way, and will give food control officials little trouble in the future.

As an incentive for the dairymen and cattle breeders of Illinois to maintain a high standard of cattle excellence, the state live stock commission proposes to issue a certificate of merit to those who will keep a dairy herd worthy of credit. The accredited herd in Illinois will be popular. The herd that does not deserve a certificate of merit will be known and treated as it deserves to be treated.

Because we have no law making tuberculin tests compulsory, the best thing that could be done under the circumstances was to offer a complimentary premium for healthy cattle. The dairy men who want it know that they sell good milk, will clean up their herd and get on the accredited list as quickly as possible. The breeders, too, with high-bred cattle for sale will welcome the opportunity to make it officially known that theirs is an accredited herd. Heretofore buyers of fine cattle have looked with suspicion on the breeding herds of Illinois. Now they will have a chance to know officially about the soundness of Illinois cattle.

It is only recently that the people have come to understand how much of evil lurks in poor milk. Now that the matter has become understood, the people are going to demand and get milk from healthy cows, and get that milk after it has passed through sanitary handling.

National Food Trades Conference

MEETING OF DEALERS IN FOOD PRODUCTS AND OTHERS
INTERESTED IN PURE FOOD HELD IN NEW YORK

MEN interested in the uniformity of food laws and the better control of the pure food situation met in New York City February 27. The purpose of the conference is indicated in the following resolutions:

First. That the various National food trades associations meet in a public National Food Trades Conference, annually at least, to consider together subjects of general interest, relating to the food control laws and regulations, to encourage the greater uniformity of efficient food control laws and regulations, and to aid, generally, in attaining purer and better foods, honestly and properly labeled and advertised.

Second. That the National and state and municipal food control officials, the committee on purity of articles of commerce, uniform state laws commission, and the various civic and other organizations representing the public generally and interested in this common subject, be invited to participate and share fully and freely in this conference, to the end that the subjects discussed may be considered from every standpoint in the final interest of the manufacturers, distributors and the general public.

Third. That the National Food Trades Conference organize on a permanent basis for the general purposes above indicated, the incidental expenses attending the holding of such conferences to be shared equally by the individual and co-operating associations.

Fourth. That the first meeting of the National Food Trades Conference to be held in New York City within sixty days, at such time as may be designated by the chairman, at the Waldorf-Astoria Hotel.

Fifth. That the secretary of the National Food Trades Conference be, and he hereby is, instructed to send a copy of these recommendations and of the proceedings of this meeting to each national food trades association with an earnest suggestion for co-operation in the National Food Trades Conference.

SPEAKERS.

Representative of the New York City Government, welcome on the part of the City of New York.

Hon. Geo. L. Flanders, Counsel, New York State Department of Agriculture, welcome on the part of the State of New York.

Charles Thaddeus Terry, Esq., President, Conference of Commissioners on Uniform State Laws.

Hon. John Barrett, Director General of the Pan-American Union. Subject—"Central and South America. What They Mean to the Food Trades." Chairman on the Food and Drugs Commission, National Civic Federation.

Miss Mary Wood, Chairman of the Legislative Committees, respectively, of the New York City Federation of Women's Clubs and the New York State Federation of Women's Clubs.

John A. Wallace, President National Drug Trades Conference.

Hon. Fritz Reichmann, Commissioner of Weights and Measures, State of New York.

Thomas P. Sullivan, member of Illinois State Food Standards Commission.

Representatives of the manufacturers, wholesalers and retailers.

Chairman, Louis Runkel, President of the American Specialty Manufacturers' Association.

Secretary, John A. Green, Secretary National Retail Grocers Association.

Among those who sent regrets at their inability to accept the invitation sent them are the following:

DEPARTMENT OF COMMERCE,
BUREAU OF STANDARDS,
Washington.

February 20, 1914.

Mr. Charles Wesley Dunn, 32 Liberty street, New York City.

Dear Mr. Dunn: In reply to yours of the 14th instant in regard to a meeting on February 26th and 27th at the Waldorf-Astoria, New York City, I would state that on account of the pressure of work here at the Bureau it will be impossible for me to accept any invitation to speak on short notice. I regret very much that neither Mr. Fischer, who is

in charge of this work, nor I can find the opportunity to present the subject of weights and measures to the Conference. We appreciate the importance of bringing this subject prominently before the various national organizations.

Respectfully,

S. W. STRATTON, Director.

EXECUTIVE COUNCIL OF
THE NATIONAL CIVIC FEDERATION.
33d Floor Metropolitan Tower, New York City.

February 20, 1914.

Mr. Louis Runkel, Chairman National Food Trades Conference, 451 West 30th street, New York City.

Dear Sir: I hope to be able to comply with your courteous invitation to have some one representing The National Civic Federation speak briefly on the proposed work of the Federation on the subject of food and drugs at the second meeting of the National Food Trades Conference at the Waldorf-Astoria Hotel on Friday, February 27, at 10 a. m.

Very truly yours,

R. M. EASLEY.

HOUSE OF REPRESENTATIVES, U. S.
COMMITTEE ON INTERSTATE AND FOREIGN COMMERCE.
Washington, D. C.

February 21, 1914.

Mr. Chas. Wesley Dunn, 32 Liberty street, New York, N. Y.

My dear Mr. Dunn:—I beg to acknowledge receipt of your letter of February 14, enclosing me a list of the speakers who will be present at the meeting of the National Food Trades Conference to be held at the Waldorf-Astoria in New York on February 26 and 27th next. I had really hoped to be able to be present at the conference and make the address which you requested of me, but I have found my engagements in Washington of such a character that it has been impossible for me to leave. In fact, on the evening of February 26 I had already made an engagement of important character in my own district, which I overlooked at the time I talked with Mr. McCormick and yourself.

Very truly yours,

J. HARRY COVINGTON.

Having charge of food legislation.

New Castle, Pa., Feb. 27, 1914.

Louis Runkel, Chairman National Food Trades Conference.

Have been laid up again. Unable to be with you. Many regrets and best wishes for a successful meeting.

JOHN C. WALLACE.

UNITED STATES DEPARTMENT OF AGRICULTURE,
BUREAU OF CHEMISTRY,
Washington, D. C.

February 6, 1914.

Mr. John A. Green, Secretary National Food Trades Conference, 305 American Trust Bldg., Cleveland, Ohio.

My dear Sir.—Please accept my thanks for your kind invitation to attend the meeting of the National Food Trades Conference, which will be held in New York City, February 27th. While I am in hearty sympathy with the aims of the conference and should be most pleased to be present at the meeting, a previous engagement will prevent my attendance.

Again assuring you of my appreciation of the invitation, I am,

Respectfully,

C. L. ALSBERG, Chief.

Washington, D. C., Feb. 27.

Charles Wesley Dunn, National Food Trades Conference, Waldorf-Astoria Hotel, New York, N. Y.

Regret exceedingly that unexpected summons to important conference on Mexican situation prevents my addressing your meeting this afternoon, but have telegraphed Fred-eric Brown, secretary Pan-American Society in the United States, 15 Broad street, and one of the best authorities on Central South American trade, requesting him to take my

place, and hope he will be able to do so. Please present my regrets to your meeting and tell them the Pan-American Union is always glad to give them any information in its power.

JOHN BARRETT,

Director General of the Pan-American Union.

TRADE ASSOCIATIONS REPRESENTED.

Azel F. Merrell, The Oyster Growers' & Dealers' Association of North America.

A. P. Husband, Millers' National Federation.

Louis Runkel, Runkel Bros.; A. J. Porter, Fred Mason, Shredded Wheat Company; A. C. Monagle, Franco-American Food Co.; W. B. Winslow, Alart & McGuire; H. L. Harris, Pacific Coast Borax Co.; C. A. Titus, Welch Grape Juice Co.; C. W. Dunn, American Specialty Manufacturers' Association.

Chas. Thorpe, Secretary New York State Retail Grocers' Association.

A. J. Porter, National Civic Federation.

Fred R. Drake, Alfred H. Beckman, National Wholesale Grocers' Association.

Frank A. Hoops, Henry Heide, National Confectioners' Association.

Alvin M. Graves, Pennsylvania, New Jersey and Delaware Wholesale Grocers' Association.

W. M. Brownell, The Biscuit and Cracker Mfrs. Association.

Hugh F. Fox, G. W. Lembeck, United States Brewers' Association.

Craig Atmore, William Pfeiffer, Mince Meat Association.

C. F. Mueller, Jr., National Association of Macaroni and Noodle Manufacturers.

S. Collat, representing Phil F. Myers, President Retailers' Association of Texas.

W. M. McCormick, Flavoring Extract Manufacturers' Association.

William B. Harris, National Coffee Roasters' Association.

John A. Green, National Association of Retail Grocers.

T. B. Wagner, Association of Manufacturers from the Products of Corn.

Maurice Fieux, Cocoa and Chocolate Manufacturers' Association.

AMONG OTHERS PRESENT WERE.

John Glassford, Jones Bros. Company; Thomas P. Sullivan, Illinois Food Standards Commission; S. Frederic Taylor, President Borden's Condensed Milk Company; B. L. Murray, Merck & Company; Richard H. Bond, McCormick & Company; A. G. Intermann, United Confectioners' Supply Company; C. Houston Goudiss, Forecast Magazine; Mary Wood, New York City and New York State Federation of Women's Clubs; Martha J. Fuller, *Housewives' League Magazine*; Mrs. Winnifred Harper Cooley, *Philadelphia North American Mothers' Magazine*; R. Wentworth Floyd, *Women's World*; M. L. Harvey, *Good Housekeeping Magazine*; Paul Pierce, *National Food Magazine*; Mrs. Wallace, Associated Clubs of Domestic Science; Miss Mary Rausch, Domestic Science Work; Mrs. Julian Heath, National President Housewives' League; Mrs. Claudia Quigley Murphy, Consultant in House Economics; Miss C. P. Dozier, Secretary Greater New York Housewives' League; Mrs. Charles D. Hirsch, New York State Federation of Women's Clubs; G. C. Hall, American Association of Pharmaceutical Chemists; Prof. Herman T. Vulte, Columbia University; Ellis L. Howland, *The Journal of Commerce*; A. L. Aronoff, *Der Wegweiser*, New York.

Total present approximately 100.

The meeting was called to order at 10:50 a. m., President Louis Runkel in the chair; John A. Green, secretary.

ADDRESS OF LOUIS RUNKEL, PRESIDENT AMERICAN SPECIALTY MANUFACTURERS' ASSOCIATION.

Ladies and Gentlemen and Honored Guests:

It is a privilege which I greatly appreciate in being permitted to welcome you to this National Food Trades Conference. The purpose of this Conference in affording a medium or a forum where our pure food laws may be considered by all interested to the end that uniformity of these laws may be advanced and better food products thereby ensured to the consumer is one which appeals very strongly for our support and approval.

This Conference was originally called by the American Specialty Manufacturers' Association. It was and is believed that the crystallizing of the general sentiment for such uniformity through this medium and the bringing together of the various agencies working toward this goal, the federal, state and municipal food control officials, the

various food trades associations, and the several civic and other organizations, would serve to bring about a sweet spirit of harmonious, cordial and sympathetic co-operation, all to the great benefit of the American people.

Uniformity means the strengthening of the existing laws, both federal and state, so that they may best fulfill their object and intent and best protect the health and welfare of our people and by such a uniform law extending to every part of this great nation, and by such a harmonious and thereby efficient administration and enforcement thereof, all the people would receive the same and equal protection and a single and the best standard of living would be provided for all. We do not believe that any particular section and any particular people should by reason of arbitrary geographical or constitutional distinctions receive better protection in the food supplies than the remaining people of the nation. Our nation is one and single, our rights and obligations are equal and our protection should be equal.

This spirit of efficiency, simplicity and standardization extends through all our activities and efforts today. We see it in the recent organization devoted to simplifying our substantive law, at the head of which is an Ex-President of these United States; we see it in the constant effort being made to harmonize all commercial regulations, which work is being so ably and efficiently accomplished by the commissioners on uniform state laws. We witness this spirit of intrastate standardization and international standardization in every direction—the common end being the highest efficiency with economy and simplicity.

The national and state food and drug control officials, the various food trades and civic organizations have repeatedly recorded their approval of such uniformity and earnestly urged its early accomplishment. We, therefore, at this time merely re-emphasize this general demand, we merely crystallize this common desire.

Let us, therefore, confer together in common counsel and by this Conference accomplish a real work in aiding in bringing our laws and their enforcement to that highest point of efficiency throughout this entire nation so that our national health, welfare and prosperity may be enhanced both for ourselves and our posterity.

THE CHAIR: I wish to inform the ladies and gentlemen present that Mr. Green is the Secretary of the National Retail Grocers' Association and comes as near being close to the consuming public of this country as anybody can be, and that is one of the reasons he has been selected by this Conference to be the secretary of this particular work, so that he could give us the greatest assistance possible in developing the ideas of this conference.

THE SECRETARY: We have several letters and telegrams here that might be read at this time.

The Secretary then read a telegram from John A. Wallace, Newcastle, Pennsylvania; a letter from H. F. Potter, Dairy and Food Commissioner of Connecticut; a letter from the General Federation of Women's Clubs; a letter from the Bureau of Standards, Department of Commerce, Washington; a letter from J. Harry Covington, House of Representatives, Congress.

THE SECRETARY: I will say that Mr. Covington is Chairman of the House Interstate Commerce Sub-Committee, having in charge all laws pertaining to foods.

The Secretary read a letter from the Chief of the Bureau of Weights and Measures, Department of Agriculture, Washington; a letter from O. B. McGlassen, President of the National Wholesale Grocers' Association; a letter from Ralph Easley, of the National Civic Federation; a letter from Albert Kaiser, President of the Philadelphia Retail Grocers' Association, and also President of the State Retail Grocers' Association of Pennsylvania.

It was agreed that each person present should hand in the name of the firms or associations he represented.

THE CHAIR: Ladies and Gentlemen, I have the honor to introduce to you Dr. S. F. Goldwater, the President of the Board of Health of Greater New York, who will welcome you in the name of the Mayor of the City of New York. (Applause.)

DR. GOLDWATER: Mr. President, ladies and gentlemen: I am very glad to say a word of welcome in behalf of the Mayor and of the population of the city, a city which is doubly interested in the movement which is inaugurated this morning, partly of course because the city represents, I may say, the greatest consumer of food in the whole world, and partly because the city has taken a rather active interest in the matter of the manufacture and distribution of food and hopes to take a still more active interest in

matters of that character in the future. The movement which is inaugurated here this morning seems to me to be significant from several standpoints. In the first place, it seems to me that what you are doing and will do will be valuable in so far as it throws additional light upon the processes of food production and food manufacture and food distribution. In the second place, I wish to express my very hearty sympathy with the idea that it is desirable from every standpoint to bring about uniformity in the matter of pure food laws. Thirdly, I think that from the standpoint of educating the public mind with regard to food values and food methods, what you are likely to accomplish will be of very great importance. America has often been accused, and it is rather hard to refute the charge, of being rather careless in the use of its opportunities. I think we must all admit that there is some truth in the allegation that we have handled our natural resources and we have used our energies rather carelessly; and from that standpoint it seems to me that what this Conference is likely to accomplish may be regarded properly as part of the general movement for conservation and efficiency in our national resources, which is characteristic of the age. In the matter of uniformity of laws, I take personal interest in what you are trying to do because when I assumed the office of the Commissioner of Health a few weeks ago I found on my desk a preliminary draft of a proposed pure food code for this city. This was a tentative draft, but was based on careful work done by representatives of the department, in the course of which they found it necessary to study the laws of this state and other states, the laws of the nation and the laws and regulations of various other countries. It seems to me that there was an effort on the part of New York City to draft a pure food code, a tremendous amount of effort represented, which, if properly applied, might be made to yield results, not only for the city, but for the country at large. And I asked myself to what extent these activities on the part of the representatives of the health department represented a duplication of work being done elsewhere. We ought, if possible, to avoid such duplication of work; we ought if possible to bring to bear in the drafting of pure food laws for any state or municipality the combined knowledge, wisdom and experience of the country. And that is the direction, as I understand it, in which this conference will work.

So far as the educational side of the work from the viewpoint of the public at large is concerned, I want to say this: As I analyzed in the first instance the activities of the health department with relation to food in this city, I found that practically one hundred per cent of the activities of the department were devoted to repressive work. Very little emphasis was put on educational work. And it seems to me that, roughly speaking, if, where I have in the field ten inspectors who are going about finding fault with people for not obeying the law, which perhaps they don't fully understand, I withdraw one or two and instruct them to devote themselves wholly to the educating of people with regard to the meaning of the law, I might in that way indirectly arrive at a point where ultimately I might be able to withdraw a certain per cent from doing police work. (Applause.)

So far as possible, I shall make it my effort to emphasize the educational methods of the health department. I am happy to say that I have already, acting along this line, made preliminary arrangements for the publication of a series of educational articles in one of the great newspapers of the city which will deal successively with the various sections of the sanitary code of this city which touch upon food. A history can be written of every one of those sections. Every one of those sections affects great economic interests. And it seems to me that if we could get one of our great daily papers and ultimately more of them to constitute themselves a forum where these things could be discussed, great public enlightenment would ensue.

In general, the condition of affairs which I am striving to bring about is this: It seems to me we must have laws on these matters for a great many years to come, but the laws ought to operate themselves automatically, there ought to be no law which does not express the scientific convictions of the community, there ought to be no law which has not the endorsement of the common sense of the community. If we can imagine an ideal millennial state of affairs in which everybody knew what was best for himself and herself, there would be no need practically for pure food laws. And I think we all of us emphasize the educational part of our work. There are various ways of developing pure food laws, and when I read over the statement of the purposes of this conference it struck me at once that you had already taken the first steps toward bringing about from the standpoint of

the municipality you may say precisely the spirit of co-operation at which you aim. I understand, Mr. President, that you intend to make an effort to bring into these conferences not only manufacturers but representatives of the public and representatives of the state law making power and administrative power. Some weeks ago I conceived the idea of forming an advisory council to the board of health of this city and it was my idea that that country should be made up in some such way as this: There would be first of all a general council and then sub-committees, each definitely related to the several bureaus of the department of health. One of the most important of those bureaus is the bureau that deals with food inspection; and while the plan for the formation of the sub-committee that will be asked to advise the department with regard to existing and new laws with regard to food development has not been definitely worked out, it has been in my mind to organize a committee which would be truly representative. I felt that a great deal could be gained if this committee were made up in so comprehensive a fashion that there were represented on it first of all men who could give us the benefit of the latest scientific data, second, some of the representatives of organizations interested in economic sides of the distribution of food to the consumer, and thirdly—I want to lay particular emphasis on this—of representatives of the manufacturers and distributors. (Applause.) I felt quite sure and still feel quite sure and am very much encouraged by this conference in thinking that the activities of the department of health can be reduced to a minimum if we begin by asking the hearty and active co-operation of the manufacturers and distributors themselves. I am sure that in nine cases out of ten where you attempt to formulate a new section of the sanitary code the need for that can be eliminated if we ask the manufacturers and producers to join hands in doing what the interests of the community demand. Having had these ideas in mind, you can imagine with what joy I witness this effort to bring about co-operative effort on the part of the producers, the consumers and the law making power.

I close by renewing my welcome on behalf of the city. There is no question at all about the need of a conference of this sort. I have every reason to believe that the spirit in which the conference will be conducted will be not selfish but will contemplate the greatest good to the greatest number, and that being so, there is every reason to anticipate the greatest possible success to your endeavors. (Applause.)

THE CHAIR: I believe we all appreciate the spirit in which Dr. Goldwater has expressed himself, and his coming from and representing such a large number of consumers in Greater New York gives us encouragement that our work is meant to do something which is going to be for the benefit of all the manufacturing and consuming interests of this country. We do know that the head of the Bureau of Chemistry, Dr. Alsberg, who is placed in the regular work of foods, is in thorough sympathy with this movement, and I can say from my own personal experience in talking with Dr. Alsberg that his sympathies are identical with Dr. Goldwater's. He believes absolutely in co-operation from the manufacturers down to the consumers in a spirit of fairness and honesty. There is no doubt in the mind of anyone here or in this country that the majority of the manufacturers, probably ninety-nine per cent, are honest in their endeavors and in their work, and that it will only require practical co-operation between those men who are entrusted in this country with the safeguarding of the interests of the consumer so that the laws which are enacted can be successfully carried out, and that they can be not only recognized by the departments and endorsed by them, but that the laws and the courts of the United States will stand back of them and put their approval on them. Until that time comes we cannot have pure food laws that are going to be carried out in the spirit in which they should. I am glad to say that Dr. Goldwater, who is our first speaker and represents the city of New York to welcome you here, has given the keynote to the strain that will eventually benefit us all. (Applause.)

We have with us Mr. George L. Flanders, Counsel of the Department of Agriculture of the state of New York. He also is president of the National Dairymen's Union. We know just what dairyman means to the people of this country, and we are glad indeed to have Mr. Flanders address us on the subject of food. (Applause.)

MR. FLANDERS: Mr. President, Ladies and Gentlemen: It is important first to consider the great part that you are playing, what you are doing toward feeding the great consuming public. There are ninety millions of people to be fed. I feel that I am standing in the presence of people who should compel me to be cautious of what I say and

to speak squarely to the questions at issue. You are a great factor. The work you are doing should not be hampered or oppressed in any way but rather should be encouraged. But in times past customs have grown up perhaps out of competition or a spirit of predatory commercialism on the part of the few that have called for the restraining hand of the law and for remedial legislation. It is too bad that such is the case, but we can take comfort in this thought, that wherever the human family is found upon the face of the earth, in regard to every food, no matter what it is, the hand of the legislative body has been called upon to exercise a restraining influence. It is true in the food line, but it does seem to me when I consider your work that I had better consider this question first from the broad standpoint of the bird's-eye view of what is before those who have to meet the question at first of how to handle the difficulties that are before us. A few years ago congresses were called at Washington, called pure food congresses, 1901, 1902, and 1903 I think. Delegates from the several states were asked to be present to consider what ought to be done and then what could be done to remedy what were believed to be at that time existing evils. I was a member of those congresses, and I tell you, ladies and gentlemen, this morning that the many conflicting ideas that were brought out there were enough to discourage the well-wishers that were gathered there. To harmonize opinions, various opinions from the dealer, manufacturer, to the dealer, to the consumer, was an enormous task. But those who have not had this experience but who suddenly conceive an idea that they can remedy all the evils that exist by sitting down in a corner and reading from a book, I say that you have escaped considerable that some of us have been through. If you were alone upon an island in the ocean, then you could have your own way, but the moment that another human being placed foot on that island, then there comes a question of compromise between you and him unless you agree. When you take a country with ninety millions of people with diversified interests and the thoughts that result therefrom, to get representatives of them together and then to unify the ideas until you can finally reach a conclusion on what you will ask to be enacted into law, is a task that is enormous. I speak of this here advisedly because since that time, something like twelve or fourteen years, I have met many people every year that tell me in one moment how to remedy every difficulty that besets us in our pure food work. It reminds me of the son of the Emerald Isle who one day said to some people he was talking with: "It's perfectly easy to make a cannon. All you have to do is to take a long hole and pour brass around it." It's easy to say, but not always easy to accomplish.

What we were confronted with at Washington after we reached the stage where we could agree practically upon the fundamental principles that must be enacted into law—and that's no easy task, gentlemen; I will discuss those fundamental principles after having spoken of the powers that may be exercised—we found that we had, I have forgotten how many states then, I believe we have forty-eight now, each state with a legislature, each state in a sense sovereign within itself, each legislative body empowered to speak for its people its sentiment as to these laws. And then a national government in some respects over all that and specially for the whole people as to commerce between states and supreme in that respect. At that time they felt as they do now, but not as keenly perhaps, that we ought to have a unification of ideas, so that we would have uniform laws and uniform enforcement. But when we came to the proposition of getting the forty-eight states to pass laws just alike, then came the question of how they should be enforced, whether they should be enforced by an agricultural college, by an experiment station, by a board of health or by a commission appointed especially for that purpose. These were matters to be discussed, and that question has not been settled yet in the minds of many people. There are those who think these laws should be enforced by boards of health. There are others who think it should be some agricultural college. And so we have the enforcement today: In Maine, it is an experiment college, in other states an agricultural college, in other states food commissions, in other states by agricultural departments. So that question has not been entirely settled yet. But then came the question: Suppose the uniform laws were passed in every state just alike, what would be the interpretation put upon those laws by the executive officers? It is a peculiar thing that we all understand that a half dozen men may read the same paragraph and possibly you may get two or three constructions alike

from the paragraph. When you go to read a law of many pages and have it read by forty-eight men, will say in different states, the chances are very great that you won't get the same interpretation upon exactly the same statutes. To illustrate: The state of New York in 1884 passed a law relative to oleomargarine. In Pennsylvania they passed one just like it. The New York law was tested, went to the court of last resort and was declared unconstitutional. The Pennsylvania law was tested, went to the court of last resort and was declared constitutional. In Minnesota they passed a law relative to the bonding of commission merchants and in Michigan they passed exactly the same law. Minnesota, I believe, declared the law to be constitutional and Michigan declared it to be unconstitutional.

Again, we are against the proposition that you have courts in the different states of last resort that pass upon it even if your commissioners agree. Then why the difference? Is it due to the difference of opinion, possible difference of opinion of men? Able, honest, upright men viewing the same question from different standpoints reach honestly different opinions. (Applause.) I am reminded of the definition that Mr. John Fiske gave of truth, and do you know, after I read and studied that definition a little while I had a better opinion of the human family: "Truth may be provisionally stated as an exact correspondence between our subjective impressions and the objective relations among things." Let me explain that a little: That truth may be provisionally stated as an exact correspondence between our subjective impression—that is, between the pictures we take upon our minds, our photographic apparatus takes for us—an exact correspondence between that impression and the relations that actually exist between things. And if your photographic apparatus is better than mine and you got a more accurate representation you would tell it as the truth, you would believe it to be so and I would tell mine as the truth and believe it to be so. And we are both honest men, but our apparatuses are not alike. Perhaps I should be forgiven, but not condemned as untruthful. So I say that our judges sitting upon the bench, having facts placed before them, judge from the best standpoint they can get of them and should not be criticised at least from the standpoint of being unfair or being biased beyond what prejudices God has given them.

But there is still another question to be involved in the question of uniformity, and it is this: The different states in their sovereign capacities adopt each a fundamental law known as the constitution of that state and which is supreme within the limits of that state if it does not conflict with the National constitution. And so the Constitution of Minnesota say might be just sufficiently different from the Constitution of the state of Michigan, so that the judges in the state of Michigan, had they been judges in the state of Minnesota, would have reversed the decision that they gave in Michigan. So there is another great obstacle to the proposition of uniformity. I am not discouraging uniformity. Wait a few moments until I reach the conclusion. But I am discussing the obstacles that are in the way. They are honest obstacles and must be plainly seen and recognized and dealt with from that standpoint.

The National Government has a Constitution—another obstacle. It is the supreme law of the land, and at this point I may be forgiven for injecting something that perhaps does not necessarily come here and may be a personal opinion of my own, but I am thoroughly devoted to the fundamental principle that we should have a written Constitution and that that Constitution should be the supreme law. (Applause.) And when that law contravenes any desire of mine, my first question is, am I wrong? And the answer invariably is, yes, you are, because if that Constitution is wrong in the minds of the majority of the people they would change it. And when they reach the stage of thinking as you do they will change it. A man said to me not long since: "Do you, sir, think that the men who drew the Constitution of this country were unable to see so far into the future that they could draw an instrument that would be applicable to them and applicable to us now?" I said "I don't know, but I tell you, sir, that the people who drew that Constitution provided a means of amending it and we started with seven articles in that Constitution and the people in this country have amended it seventeen times since, and when a condition of things arrives whereby you want it changed, go at it in an orderly man fashion and change it and don't find fault with the courts." (Applause.) Right here I want to inject this idea. We have to make up our courts, gentlemen, from human beings, living human beings that are born in our midst, sub-

ject to the frailties we are. Some way or other, from the great Unknown there have not been vouchsafed in modern times persons sent here that have supreme knowledge, that can be right at all times, and under all circumstances, and so we have to fit out our courts with human beings subject to our frailties. Now, if those decisions don't suit us we had better say this and say it humbly: "That is the decision of the court of last resort. They have declared what the law is. We now know what it means. It does not mean what we intended to have it, and perhaps the frailty in the whole situation after all is not with the men on the bench but may be with the men who drew the law. Let's draw it over and make it conform to what we want." That's the best way to get at it. It does not seem to me that it is helpful, nor that it makes for good or tends to good results to waste your time grumbling about what's gone by. Find out what the difficulty is and try to remedy it. An ex-governor of one of the states once told the story that seems to me to illustrate the point. I was present when he told it. He was going along driving and saw a man with a club pounding a dead dog. He said to him, "What are you doing that for? That don't hurt your dog." "No," he said, "I know it doesn't, but it does me a lot of good." It may be a good thing to waste our time grumbling, but I am of the opinion that in doing it the grumbler is injured more than anyone else. Let us turn our attention to the question of what we can do to remedy the evil, looking to the future.

When we faced the difficulties and recognized them—and the men in those congresses did recognize them—they then undertook to get a consensus of opinion and finally settled down to see what were the things they could agree on, and they finally did, and these were the fundamental principles that they sought to enact into the National law, and these are the principles that I want to talk to you about.

Just before I speak of that I want to see it recognized—you know it, most of you—that the National Government has only such powers as are granted to it by the Constitution of the United States, and if you want to know what the United States Government can do in the line of legislation, go to the fundamental law and pick it up, and if you can interpret; if you can't, get somebody who can, if you can find them, and find what powers have been granted to them there to exercise, and if the thing you want done has been granted to them to do you can then ask them to enact laws along that line. We found that the only thing we could do probably was to ask Congress to pass laws to regulate commerce between the states in food products, as that was one of the powers that were granted. In the Constitution it provides that Congress shall have power to regulate commerce between the states and with foreign nations and with the Indian tribes. So they were asked to pass a law to regulate commerce between the states, hoping that that law would stand as an example for the states, and that the states wherever we needed unification of ideas and work would fall in line and pass laws like that. What were the fundamental principles that were agreed upon to enact into the statutes there? That no food products should be allowed to be exposed to sale or sold containing a harmful or injurious ingredient, anything that would be harmful to the human family. And for that purpose they defined adulterated foods with that object in view and then prohibited the sale of adulterated food products in toto in the first statement. Then they defined what was adulterated food. I think under six headings. I may be mistaken whether it is six or seven. And then they made some exceptions. The exceptions were that an adulterated food product that did not contain anything harmful or injurious might be sold provided that it was labeled to show that it was a compound or mixture. And in the original bill we had the following: "Provided further that it be labeled to show its character and constituents." I came home from that conference and brought a copy of this bill, and the legislature of the state of New York enacted the principles in the tentative bill into the law of this state as they were, so far as they applied to intrastate commerce as distinguished from interstate commerce. But that bill going through the congress some way was changed a little. And among others, they struck out the clause requiring the names of the constituents and character but provided that the products might be sold if they contained nothing harmful, but if they were labeled to show that they were a compound, a mixture, an imitation or a blend. So that the National law does not require and never has required as much so far as the labeling is concerned as the law of the state of New York. Many of the states of the Union, however, do require labeling as to constituents.

The New York law was passed in 1903 and the National law dragged along until 1906 before it became a law. Now, about adulterated food products topic, I want to touch a little. I hear so many people say: "You shouldn't be allowed to sell an adulterated product." What do you mean by adulteration? The statute defines adulteration if two things are mixed together in such a way that one decreases the value of the other. Suppose that you mix some milk with some cream and sell it to somebody as milk and cream. Anything harmful or wrong about the proposition? I am not going to say there is or there isn't. I put it to you tentatively to think of it. Suppose you mix some maple syrup with some corn syrup, both perfectly harmless substances, and sell it as a double substances composed of corn syrup and maple syrup. It's adulterated product within the meaning of the statute. And so I can go on ad infinitum with the whole list of foods. Suffice it to say that those who were drawing these laws deemed it not only necessary to make these provisions but absolutely beyond their power to enact a law and sustain it that didn't make such provisions. Let me illustrate. I have been in this work a long time and in the early part of the work was somewhat enthusiastic. Sometimes I have gone along step by step all the years. I don't think I have lost my enthusiasm, but I have become a little more cautious. I don't know but I can illustrate what I mean by telling you the story that I read somewhere once of a farmer who said that he had a boy who had a great bump of curiosity, and his curiosity led him one day to take a straw and tickle a mule's hind foot to see what he would do. He said: "He isn't quite as handsome as he used to be, but he knows more." A number of years ago I helped to draw a bill to prohibit the use of all preservatives in food products. That bill absolutely prohibited the sale of food containing a preservative except salt and butter and liquor and club cheese and one or two other things. And then we thought that every difficulty that was due to preservatives, good, bad and indifferent, was wiped off the slate so far as this state was concerned. We didn't think of such a thing as a National Food Law in those days. We tried a law suit in New York City. The question was raised and the trial court straightaway said that the law was unconstitutional. We went to the Appellate Division of the Supreme Court. That court unanimously said the law was unconstitutional. We were a little more cautious at that stage, but we went to the Court of Appeals and the Court of Appeals with equal unanimity said the law was unconstitutional and they based their reasoning on this. Let us see how it sounds. They reached their conclusion this way: This law prohibits the use of a preservative. To preserve food products for the human family is a laudable purpose, and any law that says you shall not preserve a food product contravenes the fundamental principles of our Constitution. You didn't prohibit the ingredients that were harmful, deleterious, but you prohibited all preservatives. Then I began to think there was another limitation on this legislative power and authority to reach out the hand and issue a fiat on the business of your fellowmen.

We have in our law and have in the National law now that harmful and deleterious products shall be kept out of food products. There is a sentiment today in the land that we have seen and that prevails among many people that you can now pick out food substances and by legislative fiat declare them to be harmful. Possibly that can be done, but what is going to happen if we say, for instance, suppose we should suddenly get it into our heads that salt was harmful. I am not going to take any of the mooted subjects; suppose I should renew my youth and get vigorous again and think that I could bring forth a law that would remedy all evils that mankind suffers from salt, if they suffer any, and so I draw a bill and we impress the legislature and the legislature passes a law forbidding the use of salts. When we come to try the case the courts would pretty nearly let in the evidence of experiments to show whether salt was a necessity and was or was not harmful. I think we could not prove it was harmful. If the state courts followed the decision just handed down at Washington, they would pretty nearly say: "You can't prohibit that substance because you had a conception and you convinced the legislature that it was harmful." And they would issue a fiat.

One more proposition: When the several commissioners get into office they may issue rules and regulations and fixed standards and issue them as a fiat; and it is an impression that they shall become a part of the law. Last winter two gentlemen came to Albany—and if I was in the City of Buffalo I would tell you where they came from, but being

in the City of New York, I won't. (Laughter and applause.) And they had a bill and they provided for a commission and that commission was to make rules and regulations and when they had once promulgated those rules and regulations if they in any way conflicted with the law, with the law then in existence, that law should be deemed to be repealed. This calls for a moment's discussion on another feature, and that is this: That as our governments are formed, the state and the nation, the Constitution provides just how laws may be made. It provides first for an executive branch of government, a legislative branch of government and a judicial branch. The executive branch to enforce the law that has been made by the legislative, and the judiciary to interpret the law. Just stop and think that the only power to make law is given in those constitutions, and it specifically provides what power shall make them and specifically how they shall make them, and courts have held time and again that the legislative power cannot delegate the power that is given to them to make law to other powers.

I anticipate the worst thought that's coming, because it has been presented to me before. Men have said to me: "Doesn't the legislative power give a municipality a power to make laws?" Yes, but not for the whole people. It creates corporations and creates boards and gives those boards power to make rules and regulations which shall govern the boards. It creates a municipality which becomes a creature of the government. The state is the creator and the city is the creature, and they give that city power to legislate for what? For the city within its limits. No more, no less, but not for the whole people. And the courts have held over and over again that they cannot delegate the power to make law for the whole people in that way. Why do I dwell upon this topic? Because, whenever you get to a legislative body and ask them to pass a law that delegates that power, you are asking them to do an unconstitutional thing, and if you succeed in doing it, you only pass a law that after long effort and expenditure of money the courts will say is unconstitutional and you are set way back to the point at which you started and it is a useless effort. Why do it? If we want uniformity of laws, the first thing we must do is, in my judgment, to get the legislatures of the different states to pass laws that are as nearly as possible just alike. Don't think that you are failing if you don't get them just alike. You can't quite do that. But, get them just as nearly as possible to that point. Then when you have got your statutes, as you want them, as nearly as possible, try to get the enforcement by bodies that shall be so similar that their very working along will tend to make them act alike. When you have done that, in my judgment you should discourage the executive power attempting to encroach by attempting to inject into the law its notions of what the law ought to be as a fiat (applause), because the moment that you get them to do that you have the varying judgment of men at play again, and varying judgments will tend to bring about the result that you don't want, upset the uniformity, bring about a chaotic condition as compared to a cosmic one. Then when you get that, if you want standards, get them in your laws. And then if there is any question arises, let it go to the courts amicably and squarely and get the decisions of your courts. And then if you must modify the statutes to meet those decisions, go at it, but modify the statutes, don't spend the time abusing your courts, because it won't help you. They have done the best they could under the Constitution.

Now, as to labeling. In the state of New York today I want to say to you that the dealers in food products are conforming to the statutes very closely. We have a better condition in the state of New York as to the food products than we have had before. Now, having said that, I want to answer some anticipated objections to it. We have got nine million people, one-tenth of the population of the United States are here in the state of New York. And do you know that one-half of them are in this city, one-half of one-tenth, or one-twentieth? If I were to say that the people of the state of New York were not law abiding citizens, what would you tell me? I would not dare to say it. Yet, while I am saying it, there is now and then an exceptional man who is violating the laws. But that does not establish the rule. One gentleman not long ago said this: "Why do so many people say that the world is growing wicked and worse?" Because they read in the morning papers of a crime committed last night. It is this: Our mediums of exchange are so numerous that this morning we read what happened all over the world yesterday, and if anything of that kind happened, they didn't do it years ago. It happened yesterday.

Why is the commission of this crime news? Simply and solely because it is the exception. And the man who violates the laws is the exception to the rule. The large manufacturers and dealers as a rule are complying or endeavoring to comply as best they can. But here comes another difficulty. They endeavor to comply with the labeling of their food products. They interpret the statute as best they can, only to find that they have made a mistake in the estimation of the person who sits at the post of last resort. And so that calls for another feature in my judgment to which Dr. Goldwater this morning called your attention, namely, the educational feature. In the state of New York it has been part of our work almost the entire time since 1903 to try to educate the men who were dealing how to label their goods, so those that wanted to do the right thing could do it. It is a great feature, the educational side of it, for those who want and those who don't want to, and you will soon find it out. And then there is the field for prosecution. I am strongly of the opinion that both branches should be exercised. You must not only have the remedial law, you must not only have the repressing influence, you must not only have the features in your statutes to punish your wilful offenders, but you ought to have the features that will enable you to help those that don't want to be offenders.

Just one more word. I am of the further opinion that those who think the laws aren't right, that they should be changed, are in duty bound to consult with people who have been studying these questions and working in this field to ascertain where the difficulties are and try to remedy them that way, instead of sitting by themselves in a room alone and convincing themselves that something ought to be done and drawing up a bill of their own and then trying to agitate people to think that there is something wrong that ought to be remedied. The dealers in years gone by have introduced in Albany a great many laws in this state on that question of conforming to the National law, and the bills drawn for that purpose didn't come as near conforming as the laws already in existence. The law in this state is just this much stronger than the National law, in that it requires the naming of the ingredients on the package, and which the National law does not require. Whether that ought or ought not to be is not for me to say. But it is that much stronger than the National law and it will remain there until the people of this state reach the conclusion it ought not to be there, and then they will modify it.

I think I have covered in a general way the entire field. If I haven't, I am sorry. I thank you. (Applause.)

The report of the secretary was then read as follows:

NATIONAL FOOD TRADES CONFERENCE.

At the first meeting of the National Food Trades Conference held in Atlantic City on June 6th, 1913, the following resolutions were unanimously adopted:

WHEREAS, Food control legislation, general and special, has been enacted by Congress and by the legislatures of all the states, and is now being actively enforced, and

WHEREAS, Many manufacturers of and dealers in food products do an interstate business and are, therefore, subject to both such national and state regulations, and

WHEREAS, This conference has considered the need for and the value of uniform Federal and state laws relating to the adulteration and misbranding of food products, and

WHEREAS, The uniformity of the food laws is recommended by the Commissioners of Uniform State Laws and by the American Bar Association, therefore be it

RESOLVED, That this national food trades conference hereby reaffirms its belief in food control legislation, which shall deal justly and equitably with the interests of the consumer and the trade as beneficent and necessary legislation, and be it further

RESOLVED, That this conference hereby earnestly recommends that such food control legislation, national and state, be uniform, believing that such uniformity will equally benefit the consumer and the trade.

RESOLVED, That the chairman of the National Food Trades Conference be, and he is hereby authorized, to appoint a committee representing seven distinct National Food Trades Associations to meet in the near future and to consider the advisability of continued and similar co-operation between the various National Food Trades Associations in the attainment of the greater uniformity of the food control laws and regulations and to devise and suggest such method of co-operation, and if sufficient of said organization approve such plan to report the same

back to another meeting of this conference called for said purpose.

By virtue of the authority of the latter resolution, the chairman of the conference, Mr. Louis Runkel, appointed the following committee to meet and consider the future plans of the conference, in accordance with the terms of said resolution:

National Association of Retail Grocers, designated representative, Mr. John A. Green, also secretary of the conference.

National Confectioners' Association, designated representative, Mr. J. J. Matchett.

Flavoring Extract Manufacturers' Association, designated representative, Mr. W. M. McCormick.

American Association of Manufacturers of Products from Corn, designated representative, Dr. T. B. Wagner.

National Association of Macaroni and Noodle Manufacturers, designated representative, Mr. C. F. Mueller, Jr.

Mince Meat Association, designated representative, Mr. William Pfeiffer.

National Association of Glue and Gelatin Manufacturers, designated representative, Mr. Rufus W. Powell.

The committee so appointed met on December 16th, 1913, at the Waldorf Astoria Hotel, with full representation, with the following modifications: Mr. F. S. Muchmore acted as alternate for Mr. W. M. McCormick, representing the Flavoring Extract Manufacturers' Association; Mr. Hennessy accompanied Mr. Pfeiffer, representing the Mince Meat Association. There were present, also, by invitation: Dr. E. J. Lederle, health commissioner, New York City; H. F. Thunhorse, secretary of the American Specialty Manufacturers' Association, and Charles Wesley Dunn, also of the American Specialty Manufacturers' Association.

The meeting was called to order by the chairman of the conference, Mr. Louis Runkel. Mr. Runkel explained, historically, the development of the National Food Trades Conference, its possibilities and value. The chairman then requested the secretary, Mr. John A. Green, to read the report of the work of the conference to date, a copy of which report is appended hereto.

Dr. E. J. Lederle then spoke briefly in hearty endorsement of the value of such a conference, pointing out the various subjects which such a conference may well consider in the interest not only of the food trade but also of the general public.

At the suggestion of the chairman each delegate viewed the subject under consideration, offering suggestions and advice. The ensuing general discussions were of exceeding interest and the general spirit of the meeting was that of an earnest and thoughtful desire to promote food control regulation in the best interests of the trade and the public.

Appended hereto is a summary of the general considerations and the consensus of opinion of the committee as to the purpose and value of a National Food Trades Conference in aiding the accomplishment of the greater uniformity of the food laws, to which we would direct your careful attention.

The committee was unanimously of the opinion that the National Food Trades Conference should be continued on a well defined basis and after due consideration the following resolution was adopted:

First: That the various food trade associations meet in a public National Food Trade Conference, annually at least, to consider together subjects of general interest, relating to the food control laws and regulations, to encourage the greater uniformity of efficient food control laws and regulations, and to aid, generally, in attaining purer and better foods, honestly and properly labeled and advertised.

Second: That the National and State Municipal Food Control Officials, the Committee on Purity of Articles of Commerce, Uniform State Laws Commission, and the various civic and other organizations representing the public generally and interested in this common subject, be invited to participate and share fully and freely in this conference, to the end that the subjects discussed may be considered from every standpoint in the final interest of the manufacturers, distributors and the general public.

Third: That the National Food Trades Conference organize on a permanent basis for the general purposes above indicated, the incidental expense attending the holding of such a conference to be shared equally by the individual and co-operating associations.

Fourth: That the first meeting of the National Food Trades Conference be held in New York City within sixty days, at such time as may be designated by the chairman, at the Waldorf Astoria Hotel.

Fifth: That the secretary of the National Food Trades Conference be, and he hereby is, instructed to send a copy of these recommendations and of the proceedings of this meeting to each national food trades association with an earnest suggestion for co-operation in the National Food Trades Conference.

The meeting then adjourned.

By virtue of the authority of the above resolution the chairman of the conference has designated the following date for the next meeting of the National Food Trades Conference:

Friday, February, 27th, 1914.

WALDORF ASTORIA HOTEL, NEW YORK CITY.

10 O'clock A. M.

As instructed by the above resolution, I herewith earnestly suggest that the Food Trades Association you have the honor to represent will lend its hearty and cordial co-operation to the end that the National Food Trades Conference may not only perform signal and valuable work for the food trade of this country but may, also, indicate to the public by its works that the food manufacturers and dealers represented therein are sincerely appreciated of their obligations to the public and are absolutely in favor of the strongest protection of the public health and welfare.

I would respectfully ask you, therefore,

First: To indicate at the earliest possible moment, by February 16th, 1914, if possible, the intention of the association you have the honor to represent to co-operate in the above meeting, naming the delegates (no limit specified) officially designated to be represented therein.

Second: To offer any suggestions as to program, etc., all of which suggestions will be carefully considered by the above named Committee of Seven. Several important matters are already under consideration.

I have the honor to remain,

Very respectfully yours,

JOHN A. GREEN,

Secretary, National Food Trades Conference.

The report of the secretary stood approved as read.

The Chair: The Executive Committee of this conference, having met previous to this meeting prepared certain resolutions, which are absolutely necessary in order to carry the work to a satisfactory conclusion, which we hope will be in the near future, and for that purpose you will be kind enough to hear these resolutions.

Mr. Dunn, counsel of the American Specialty Manufacturers' Association, will read these various resolutions which bear on the subject which we meet here to discuss.

Mr. Dunn: I am deeply interested in your work and at the invitation of the Central Committee, very kindly extended, I was present at their deliberations and assisted them as best I could.

(The resolutions marked 1, 2 and 3 were then read and stood approved as read.)

Resolution marked 4 was then read.

(1)

WHEREAS, Uniformity of the Pure Food Laws means the most efficient laws universally prevailing, Federal, state and municipal, affording thereby equal protection and a uniform standard of living for all, and

WHEREAS, The National and State Food and Drug Control Officials, the American Bar Association, the Commissioners on Uniform State Laws, and the several trade, civic and other associations have urged the necessity for and value of such uniformity, therefore be it

RESOLVED, That this National Food Trades Conference hereby earnestly urges that every effort be made to the end that such uniformity may be as fully realized as possible, in the interest of the general public welfare.

(2)

WHEREAS, The Secretary of the United States Department of Agriculture has recently determined upon and announced certain changes in the administrative procedure in the enforcement of the Federal Food and Drugs Act of June 30, 1906, for the purpose, as announced, of more efficiently and effectively performing the important work of enforcing the above named law, therefore be it

RESOLVED, That the National Food Trades Conference hereby records its warm approval of any changes in the administration of the Federal Food and Drugs Act of June 30th, 1906, which may render the operation of that act more effective and extends to the Secretary of the United States Department of Agriculture and the officials co-operating with him in this work this expression of

their confidence and best wishes and offers its heartiest co-operation.

(3)

WHEREAS, The National Civic Federation has recently appointed a committee to study and report upon the operation of the food and drug control laws of this nation, and to ascertain in what respects such laws, Federal and state, should be uniform, and

WHEREAS, This influential and respected altruistic organization is peculiarly situated so to perform a lasting service to the people of this country, therefore be it

RESOLVED, That the National Food Trades Conference hereby extends to the National Civic Federation in the inception of this important work its very best wishes and suggests and directs its duly appointed Committee on Collaboration to offer its sincerest co-operation.

(4)

WHEREAS, The Association of American Dairy, Food and Drug Officials, representing the Food and Drug Control Officials, National and state, are earnestly and actively encouraging the most efficient and uniform regulation of the manufacture and sale of food products, Federal and state, and are seeking to have co-operate, sympathetically and harmoniously, to that end all who are concerned, officials, food trade and the general public, therefore be it

RESOLVED, That the National Food Trades Conference hereby offers to the Association of American Dairy, Food and Drug Officials its heartiest co-operation and requests and directs its duly appointed Committee on Collaboration to confer and co-operate with this above named association, in every way, so as to accomplish the most equitable, efficient and uniform food control laws and regulations and enforcement thereof, Federal and state.

Mr. Dunn: And I will state in connection with this resolution that it has been the custom of the National and State Food Dairy and Drug Officials to meet annually. The food trades and others interested have been present on their own initiative, that is to say, they have been very welcome as I understand, but there has been no official attempt to have the food trades and the other individuals interested attend these meetings and co-operate. And we have a telegram here which will be read extending from the president of that association, Mr. James H. Wallis, to this conference an invitation that its duly appointed Committee on Collaboration attend its next annual meeting in Maine and co-operate heartily and fully in the attainment of the objects of the conference, which I think is a great step in advance and which should prove very fruitful in the end.

The Chair: You have heard this last resolution. If there are no objections it will stand approved as read.

Mr. Dunn: We have now two resolutions of particular value, constructive resolutions which will place this conference, I think, in the way of doing some very important constructive work, and this is the first of the two resolutions I have in mind:

(5)

FOREIGN PURE FOOD LAWS.

Your committee has given careful consideration to the situation existing in the more advanced and enlightened foreign countries, particularly in Europe, relative to the existence and enforcement of the pure food laws. We fondly and it is believed, properly, cherish the notion that this great nation leads the nations of the world in the measures taken to safeguard the health and welfare of its people, as expressed in the pure food laws. This is clearly the age of standardization, of studying the methods and procedure of foreign countries along similar lines and taking for our own use and benefit the best features thereof. The United States Government has been duly appreciative of the value of such standardization, and has made many investigations at first hand of conditions abroad and through such study has been able to collect the most complete knowledge along various lines which has been used subsequently as a basis for administrative and legislative action in this country.

While Federal commissions have been sent abroad by Congress to study and investigate along particular lines no such action has been taken in the field of pure food laws. We believe that an authoritative, intelligent and careful investigation of the administration and enforcement of the pure food and drug laws of the most advanced and enlightened nations of Europe making available complete information and statistics as to the existing laws, regulations, standards, decisions, methods, analyses, etc., would prove of incalculable and lasting value in making the similar laws of this country most efficient in themselves and most efficiently enforced and

would afford a fund of the most valuable information not only for the administrative officials but also for the food trade of this country to their great instruction. Such an investigation might be the first step toward practical international co-operation in this field and toward the continued exchanges of advice and collaboration, thus aiding international comity and uniformity in the administration and enforcement of the pure food and drug laws of the several nations. Such information would also be of great service, we believe, in aiding the development of our export trade in food and drug products.

Your committee, therefore, recommends for adoption the following resolution:

RESOLVED, That the National Food Trades Conference does hereby recommend the appointment of a competent Federal Commission by the President by and with the consent of Congress authorized and directed to investigate the pure food and drug laws of such foreign nations as may appear most advisable, and their administration and enforcement and to report fully the result of such investigation, which report shall include a statement of the existing laws, regulations, standards, methods and such other information as may be of interest, which report shall be published and made available for general use.

Mr. Dunn: In connection with that resolution, I wish to state that Commissioner Wallis, who is the dairy and food commissioner of Idaho and also president of the National Association of Dairy Food and Drug Officials of the United States, has sent the following telegram to this conference:

"Regret I cannot meet with you in conference but wish you God-speed in your efforts for uniformity of our pure food laws. Would like your conference represented at our Maine convention (which is the annual convention of the officials in Maine in July) by committee to start movement for a Federal commission appointed by Congress to go abroad and study the whole food situation in Europe, and our National convention will supplement your work in our annual convention."

JAMES H. WALLIS.

The Chair: The resolution in regard to a commission to be appointed by the President is one which we have been thinking about and studying upon very seriously because we believe that while our country is a very large country we are still young in years compared to Europe and perhaps we could get some very necessary and correct information in regard to the pure food laws of Europe and how they are administered, which would help solve the problem which we are facing now, because we do not believe any of us, whether they be manufacturers, wholesale grocers or retail grocers or consumers, that the entire proposition is properly settled yet. Any gentleman here who would like to make any remarks, in regard to these resolutions in regard to this National commission going abroad, I would like to have the gentleman take this opportunity to speak on the subject. If not, the resolution will stand approved as read.

Mr. Hugh F. Fox: Mr. Chairman, I am heartily in sympathy with the purposes of the resolution. It is an extremely important and extremely radical move, and I can see the importance of so safeguarding it that it will accomplish the best results without in any way giving offence to anybody in connection with the departments in Washington in the Federal Government. The Secretary of Agriculture through the Bureaus of Chemistry and other departments of course has been doing some of this work already to a limited extent. In some respects, quite amply. What I fear if the resolution is not supplemented or qualified is this: You might possibly have a Federal commission appointed that would be so completely political in its character that the highly specialized experts who are absolutely needed in an investigation of this kind might not be appointed. I should think it might be well to report from this body and to recommend to the food commissioners that in the appointment of such a commission the chief of the Bureau of Chemistry and other experts should be represented. In other words, that it should be made a part of the movement. I can't draft such a resolution off-hand, but the spirit of it, I think, you could get and counsel no doubt could improve it.

The Chair: Would Mr. Dunn please read that part which applies to the appointment of the committee?

Mr. Dunn: I might say in answer to Mr. Fox that the very point which he has raised was considered at the meeting of the committee. We did not deem it advisable in a general resolution of this character to go into details as to the make-up of the commission. It was only to start the movement and leave the details, having in mind of course that the commission should be composed of duly accredited

representatives of the United States Department of Agriculture, of the State Food and Drug Officials and of such other experts representing the manufacturing interests and the consumer and the public generally that the result would be truly authoritative and truly valuable. And if I might suggest, I have substituted just one word. In front of the words "Federal Commission," I have substituted the word "competent." If that is agreeable to Mr. Fox, I think that would cover for him the general proposition. And then of course any commission will have to be on that basis naturally. So I will read the resolution as amended, for your approval. (Reads the resolution with the insertion of the word "competent.")

The Chair: You have heard the amended resolution. Unless there is any objection, it will stand approved as read.

Mr. Dunn: The next resolution is the second of the two important resolutions which the committee had under consideration, and I would direct your attention to this resolution also.

(Mr. Dunn here read resolution marked 6.)

(6)

WHEREAS, The National and State Food Control Officials at the recent meeting held in Washington at the invitation of the Secretary of the United States Department of Agriculture, recommended that the Federal Food and Drugs Act of June 30th, 1906, be amended to authorize the establishment of food standards, and

WHEREAS, This conference desires to aid and co-operate in any effort by which the Federal Food and Drugs Act may be made more efficient and a uniformity of such laws, Federal and State, be accomplished, therefore be it

RESOLVED, That the National Food Trades Conference directs its duly appointed Committee on Collaboration to give this recommendation careful and thorough consideration and to confer with the National Food Control Officials and the Association of American Dairy, Food and Drug Officials and render as complete report thereon at the next meeting of this conference.

The Chair: You have heard these resolutions. Are there any remarks to be made by anyone present here? We shall be very glad to have them made, because we believe that these resolutions are very important at this time. This one deals with the subject of standards which are now being promulgated by a great many states, and I believe that at this time it is proper for us to recognize that this inevitable and probably the best manner in which control can be had of food products, to have economic standards, which has not been done yet, and I believe it exists in some of the states now, but unless the National Government takes up this matter seriously it will be more and more conflicting.

Mr. Dunn: I will state for the information of the conference that this is not a proposition on which there is a unanimity of opinion in the food trades, and the purpose of this resolution is, as of the accompanying resolutions, to take up successively the recommendations which the National and State Food and Drug Officials have made at their recent conference in Washington. If food standards are advisable and necessary and essential to the public welfare we ought to have them, but there has been no sufficient investigation of all sides of this proposition, and I think this resolution allows this conference through its duly appointed committee to investigate the whole proposition, to talk it over with the National and State officials and others interested and render a complete report as to the advantages and disadvantages and lay the whole matter before the conference at its next meeting for any action which it may desire to take.

The Chair: I wish to state in connection with these resolutions that we have here with us Mr. Frederick R. Drake of Easton, Pennsylvania, of the National Wholesale Grocers' Association, and who is representing the Pure Food Legislative Committee of the association. They represent three thousand or more wholesale grocers who are certainly the main artery of the distribution of food products in this country, and Mr. Drake will speak to you on the question of National standards and the metric system, which as you know exists all over Europe and which to a certain extent has been recommended in Congress to be adopted in this country, is still under discussion and may be adopted at a later time.

Mr. Dunn: The next resolution takes up an additional recommendation of the State and National Food and Drug Commissioners at their Congress in Washington.

WHEREAS, The Federal and State Food and Drug Control Officials at a meeting held in Washington in November, 1913, at the invitation of the Secretary of the United States Department of Agriculture, recommended that the Federal Food and Drugs Act of June 30th, 1906,

be amended so as to provide against the exposure of food to contamination and insanitary conditions, and

WHEREAS, The present Federal law is imperfect in that no provision is made therein to provide against the exposure of food to contamination and insanitary conditions, which exposure would render food unwholesome and unfit for consumption, although such a provision is incorporated in the laws of several of the states, and

WHEREAS, The proposed amendment would further protect the people of these United States against the consumption of unwholesome food, therefore be it

RESOLVED, That the National Food Trades Conference hereby strongly endorses an amendment of the Federal Food and Drugs Act of June 30, 1906, which will provide against such an exposure of food to contamination or insanitary conditions as would render it unwholesome and unfit for consumption and requests and directs its duly appointed Committee on Collaboration to confer with the Federal Food and Drug Control Officials and with the Association of American Dairy, Food and Drug Officials, to the end that such an amendment may be accomplished at the earliest date and the laws of the several states amended in a similar manner.

The Chair: I wish to explain why this resolution is offered. From the experience obtained by shippers it has been found that in a great many cases, take it among the grocers where they are shipping a mixed carload of food products, that they may be contaminated during the progress to destination, contaminated with articles that would injure the product. This applies to a great many articles of food and this is one of the points not covered by the National law, and we believe that the regulation of this point will be a very important one, and ought to be able to protect pure food in transportation much more strongly than has been the case before. Unless there is any objection, this resolution will stand approved as read.

Mr. Dunn: The next resolution has to do with a similar recommendation of the Federal and State Food and Drug Control Officials at their recent meeting regarding the statement of the guarantee legend upon labels.

WHEREAS, The Association of American Dairy, Food and Drug Officials has resolved against the further privilege of using the guarantee legend upon the label, to-wit, "Guaranteed by _____ under the Food and Drugs Act of June 30th, 1906," for the alleged reason that such legend is generally misunderstood by the consumer to mean that the products bearing the same upon the label are guaranteed by the Federal Government to conform to the Federal Food and Drugs Act of June 30, 1906, and,

WHEREAS, The Federal and State Food and Drug Control Officials have reaffirmed the resolution of the Association of American Dairy, Food and Drug Officials, at the meeting held in Washington in November, 1913, at the invitation of the Secretary of the United States Department of Agriculture, and

WHEREAS, The food trade of these United States has no desire or wish to encourage the perpetuation of any statement upon the label which may operate as a deception and thereby be contrary to the intent and purpose of the law, and

WHEREAS, It is appreciated that the prime and only purpose of the present guaranty provision in the Federal law is to afford protection to innocent dealers against the possible illegality of products purchased in good faith, nevertheless the use of such legend has served, also, to aid in conveying in some measure to the consumer the knowledge that products bearing it conform to the severest requirements of the Federal pure food law, when such is a fact, which knowledge the food trade earnestly desires to convey in every reasonable and practical manner, therefore be it

RESOLVED, That the National Food Trades Conference hereby requests and directs its duly appointed Committee on Collaboration to confer with the Federal Food and Drug Control Officials and with the Association of American Dairy, Food and Drug Officials to the end that such action may be taken which may be necessary and proper to qualify, define or limit the use of the guaranty legend as will best fulfill the purpose and operation of the Federal Food and Drugs Act of June 30, 1906.

WHEREAS, The Federal and State Food and Drug Control Officials at the meeting held in Washington in November, 1913, at the invitation of the Secretary of the United States Department of Agriculture, recommended that the permissive provisions of section 8 of the Federal Food and Drugs Act of June 30th, 1906, relating to the

sale of mixtures, compounds, imitations or blends, be amended in certain particulars, therefore be it

RESOLVED, That the National Food Trades Conference hereby requests and directs its duly appointed Committee on Collaboration earnestly to co-operate with the Federal and State Food and Drug Control Officials in this respect to the end that the purpose of the Federal Food and Drugs Act of June 30th, 1906, may be most completely and fairly fulfilled.

The Chair: I wish to explain that there is a disposition at the present time to abolish this guarantee for the reasons stated in this resolution and I know from my own experience in talking with some of the gentlemen in Washington that they have not yet decided whether the guarantee placed on labels should be entirely eliminated or whether there should be a change made in the manner that it reads. There is no denying the fact that ignorant people and some intelligent people who do not quite understand the reason why the guarantee number is placed on the package are led to believe that the moment that there is such a guarantee on the package it means that the product is all right. It was never so intended, it was intended merely to state the number of the man or firm who received such a license, the manufacturer under that number, and to stand back of the article. But that's all. We believe therefore that before the Government in Washington should eliminate it entirely or make a change the manufacturing interests are to be consulted so as to arrive at some decision by which the same purpose can be obtained. If you have no objection, the resolution will stand.

Mr. William Beverly Winslow: I am not going to move to lay this resolution on the table, as I did when it was considered in committee, but I think it is foolish. When the law requires a manufacturer or a jobber to guarantee a certain product, the law and regulations under the law cannot take from him the privilege of saying that the product "is guaranteed by" (the manufacturer) "under" or "as complying with," I do not care what the Department says or what they want, whichever phrase you choose to use, the Food and Drug Act. If there is any sense in a label and in having a bottle labeled, it is supposed that people will read it. It is presumed that that is what the label was put on there for. And if they cannot read that phrase and know what it means, then they cannot read anything else on it. What is the use of putting on a label that this is a compound of such and such things, as Mr. Flanders tells us the New York law requires, if people can't read it and understand it? The clause as it now reads is perfectly understandable to anybody who reads the English language; and the regulations unless Congress changes the Act and does not require the guarantee, cannot take the right away from a man to say that it is guaranteed to comply with or under the Food and Drugs Act of June 30, 1906.

The Chair: Mr. Winslow, we are not recommending the change. The resolution only referred to the fact that if a change should take place the manufacturers should be called in to consult with regard to the manner in which the change should be made.

Mr. Winslow: If you will change the resolution to make it say that, I don't oppose it. But I don't want to go on record so far as I am concerned as recommending that.

The Chair: No, we don't recommend that.

Mr. Winslow: Because when the United States Supreme Court comes to pass on the present language as suggested by the Department of Agriculture—not required; you don't have to put it on now if you don't want to—they will say just as they did in the bleached flour case, that Congress when it said that no poisonous or deleterious matter shall be put in food which may render it injurious to health, that Congress knew what "may" meant, and if it was not injurious to health it would not prohibit it, and that when Congress said the food product should be guaranteed, the right went to the man to say that it was guaranteed under that Act.

Mr. Dunn: I will say that the resolution leaves the matter in the position in which the gentleman desires. The food trade does not wish to perpetuate any statements which may act as a deception. This resolution only allows the Committee on Collaboration of this conference to co-operate with the officials in reaching some conclusion which is satisfactory both from the standpoint of the public and all others interested.

Mr. Winslow: It assumes that the present legend is a deception.

Mr. Dunn: I think the resolution does not assume that. I will read it over again for your convenience and understanding. (Re-reads resolution.)

The Chair: I would like to hear Mr. Beckman, secretary

of the National Wholesale Grocers' Association, on this resolution.

Mr. Beckman: Speaking for our association, I think Mr. Winslow has the correct view on that, and I question the propriety of the resolution standing just as read unless amended as outlined by the previous speaker. There may be a question of legal rights involved there that I am not familiar with, but I do believe that the manufacturer or wholesale grocer who contends for the privilege of continuing the guarantee has the right, whether the department rules against him or not.

Mr. Goddes: I represent the consumer. I believe that I can't recall the date, but I do know that Dr. Alsberg himself has stated that this guarantee is misleading, and I know myself that having talked in the last seven years to at least seventy-five thousand consumers, the average woman is of the opinion that it is misleading. I believe that if this room were composed of average housekeepers and you said to them "What do you mean by guaranteed under the Food Law?" the average woman would say, "We think it is a guarantee by Uncle Sam." I know that's the reply I get.

Mr. Winslow: We can't furnish brains.

Mr. Goddes: Well, read it. What does it say? It says "Guaranteed under the U. S. A. Law, 1906."

Mr. Winslow: Now, if you can say "guarantee it to comply with," it is only a few more words.

Mr. Goddes: It is a guarantee of purity.

Mr. Winslow: It isn't. It doesn't say so. Never did say so.

Mr. Goddes: Well, I will leave it to the average woman that is here now.

Mr. Winslow: I think the women here are above the average.

Mr. Goddes: Even so, that is in my favor. If women above the average think that, what must the average woman think?

Mrs. J. C. Hirst: As chairman of the Committee on Food of the New York State Federation of Women's Clubs, I can say that the average woman—and our women are above the average in intelligence—does think that it is a guarantee of purity. And it has been my privilege for the last four years to go over the state and tell them that it is not a guarantee.

The Chair: I want to say right here, and I want to go on record to state that I fully agree with Mrs. Hirst in regard to her remarks. I think that as long as that guarantee stands on a package in the manner in which it is worded now, it will be misconstrued, misinterpreted by ninety per cent of the people of the country, whether they are men or women. It is all right for us manufacturers to know what it means, and I will tell you further as chairman of the Legislative Committee of the American Specialty Manufacturers' Association, until last year I had many manufacturers call me up or speak to me on that subject and they were under the impression that they could not put out a package of goods unless they had that on. There is nothing in the law to compel you to put that on. So, if the manufacturers don't understand it, how can you expect the population of this country which is so mixed that half of them don't speak the language, to understand it?

Mrs. Heath: I was invited here. I did not know that those who were outside the convention were given the floor.

The Chair: Certainly. This is an open meeting.

Mrs. Heath: I thank you very much. I represent the National Housewives, more than seven hundred and fifty thousand members, and I want to stand for all that has been said in regard to the consumer, and more. We would have to take, if we could do it, days and days to answer the letters that come to us on just that very question. That is, the consumer is asking every hour of every single day, what does the guarantee mean? So I say that is possibly the greatest proof.

Something has been said about the reading of the label. I believe that the average housewife has not up to this time done that. But I also want to say that I find a great awakening all over the country about that. I was in Toronto even last week and I find the women there inquiring about the thing as they never have done before, and I think the label ought to mean more than it ever has before, because from now on the consumers want an intelligent label, and also when they get that intelligent label they will stand by the men who put out the goods. (Applause.)

The Chair: This resolution is not condemning nor endorsing this label. This resolution has been offered here for only one purpose, and I want to repeat here what I have said before in the meeting of our Central Committee, and say that

if there is going to be any change made, we believe that the manufacturers ought to be consulted and the consumers.

Mr. Winslow: I agree with you on that point.

The Chair: And if these resolutions do not cover that point I believe that they ought to be changed to read that if any change shall take place, if it is the idea of the National Government to improve the manner in which this guarantee is placed on labels, that the manufacturers as well as the consumers should be consulted, so that when the change does take place it will be so worded as to make it intelligible to everybody who is concerned in the purchase of goods.

Mr. Dunn: I will say that this resolution does provide for that very point. Some of the largest manufacturers in the country today, in fact one who was represented in the meeting yesterday, are changing their guarantee legend at the present time, although there has been no authority from the Federal Government providing for such a change, and eliminating the word "under," which seems to be the objectionable word, and they have their guarantee legends read "Guaranteed to John Jones to conform to the Food and Drugs Act." That is an improvement. Whether it goes far enough is a question, however. But under this resolution it would allow the consumer, represented in this conference—this conference represents the consumer and represents every other interest concerned—to discuss this matter with the Federal authorities and reach some conclusion, which shall be satisfactory to all the parties interested. That is what the resolution means.

The resolution was then put to a vote and adopted.

Mr. Dunn: The next resolution is another recommendation made by the National and State Food and Drugs Control Officials at Washington.

WHEREAS, Congress has recently amended the Federal Food and Drugs Act of June 30, 1906, requiring packaged food to be labeled to indicate the net weight, measure or numerical count, and providing that reasonable variations shall be permitted and tolerances and exemptions as to small packages shall be established by rules and regulations, and

WHEREAS, Such a provision peculiarly fulfills the purpose and intent of a pure food law in ensuring to the consumer honest and exact weight, measure and count, and

WHEREAS, The following states have enacted a similar or substantially similar provision, viz: Arizona (relating to certain specified foods only), California, Connecticut, Florida, Georgia, Iowa, Maine, Michigan, Montana, Nebraska, Nevada, New Hampshire, New York, North Dakota, Oregon, Pennsylvania, South Dakota, Tennessee, Utah, Wisconsin and Wyoming, and

WHEREAS, Bills providing for such an amendment are pending at this time in the following states, viz: Massachusetts, Rhode Island, New Jersey, Virginia and South Carolina, and

WHEREAS, It is of importance in the interest of a general and uniform enforcement of these laws, that the rules and regulations permitting reasonable variations and establishing tolerances and exemptions as to small packages shall be in harmony, Federal and State, therefore be it

RESOLVED, That the National Food Trades Conference earnestly recommends that the pure food laws of the several states not now so providing be amended so as to incorporate the amendment of the Federal Food and Drugs Act of June 30, 1906, requiring the statement of the net weight, measure or numerical count in the case of packaged food and providing that variations, due to natural or mechanical causes beyond reasonable control, shall be permitted and tolerances and exemptions as to small packages established by rules and regulations, and be it

FURTHER RESOLVED, That the National Food Trades Conference hereby recommends that an additional provision be inserted in such state law, if it is not already provided, to the effect that the rules and regulations permitting reasonable variations and establishing tolerances and exemptions as to small packages be in harmony with the similar rules and regulations established under the Federal law, and be it

FURTHER RESOLVED, That the Secretary of this conference be and he hereby is authorized and directed immediately to communicate this resolution to the proper officials of the several states whose legislatures are now or will shortly be in session, and earnestly urge compliance therewith, and be it

FURTHER RESOLVED, That this conference hereby directs its duly appointed Committee on Collaboration to

confer and co-operate with the officials of the several states and legislatures of which will be in session during 1915 and with the Association of American Dairy, Food and Drug Officials to the end that the purpose of this resolution may be most fully realized.

The resolution was adopted as read.

Mr. Dunn: The next resolution relates to the question of weights and measures. We expected and fully anticipated that Dr. S. W. Stratton, Chief of the Bureau of Standards of the Department of Commerce, would be present and speak. We will be honored, however, by having the Hon. Fritz Reichmann, the New York State Commissioner of Weights and Measures, speak this afternoon. Dr. Stratton desires to have the co-operation of this conference in this work and we consequently have drafted this resolution.

WHEREAS, The enactment and enforcement of effective laws providing for standard weights and measures and local inspection are particularly in the public interest, and

WHEREAS, The Federal and State Weights and Measures Officials are actively urging the enactment of such laws, therefore be it

RESOLVED, That the National Food Trades Conference does hereby earnestly endorse these efforts and directs its duly appointed Committee on Collaboration to co-operate with the above named officials to this end.

The Chair: I would like to speak on that Weights and Measures question. There are many of you ladies here who are closely allied to the consumer, who ought to be able to help us to see that the weights and measures law should be just as broad as possible. That is to say, we want to get them alike all over the country. When a man comes over from Jersey, just across the river, he comes here, you cannot interfere with him so well as if the laws in Jersey were the same as in New York. And what we are trying to get is the uniformity of laws relating to weights and measures just as much as foods. And the net weight law of the State of New York, which is on the statute books today and was, I think, passed three years ago, is a measure that was introduced by Dr. Reichmann after having co-operated with the manufacturers who understand just what they would do and is a practical law. The National law, which is on the statute books in Washington, is practically the same law, but there is so much diversity in the different States on the question of weights and measures that in one State, for instance, a bushel weighs ten or fifteen pounds less than in another. That all the laws in the different States relating to weights and measures should be different is unreasonable. And that is one reason, while we are working for uniform food laws, that we are also interested in uniform laws relating to weights and measures, because it is just as important for the consumer to receive the full weight of whatever he buys as it is for the quality of the goods to be standard.

Mr. Dunn: Before the question is put, I have here two resolutions on the subject of weights and measures. The first covers the local weights and measures laws generally. The second covers the net weight, count or measure law, the statement on the label as to the net weight, measure or count.

Mr. A. P. Husband: Mr. Chairman, I want to take this opportunity, with Mr. Dunn's permission, to call to the attention of those who are here that are manufacturers of food commodities, the very great necessity of their becoming interested in the question of the tolerances to be established under this amendment, the weight amendment. While, of course, that will only pertain to foods in interstate commerce, nevertheless it will work a very great hardship upon the manufacturers of certain commodities if they don't put into the possession of the committee that is now taking testimony along that line the information necessary for that committee to define what the proper tolerances are. I have been about six months working on the thing in our trade. I might say for the information of the meeting that I represent pretty nearly eleven hundred flour mills with a total daily capacity of almost three hundred thousand barrels. The members of our organization are located in twenty-five States. We do business in all States. Now, our friends manufacturing flour for instance down in Galveston, Texas, don't know anything about evaporation of moisture content of flour, while our friends in Colorado are very familiar with that. And if one of our lady friends here were to get a sack of flour and upon weighing it if the label said it was 48 pounds, weighed it and found that it weighed 46½, it would be awfully hard to convince that lady that she was getting food value in there equal to a freshly packed sack of 48-pound flour. But a baker would pay a premium for that flour be-

cause of its having evaporated that natural moisture content, because it put the flour in a position to absorb a greater percentage of moisture content. I call to the attention of the manufacturers represented here the very great necessity of protecting their own interests before this committee, of which Dr. A. S. Mitchell, recently of the Board of Food and Drug Inspection, is secretary.

Mr. Dunn: The various regulations providing for tolerances under the Federal Food & Drugs Act have been completed. That is, the preliminary investigation. It is now being passed upon by the Solicitor of the Department, and they hope to issue it within two weeks, so that the preliminary draft is completed. But, of course, they have full authority to change them, and they must be changed to meet the necessities of the case, and I think the suggestion from the floor is a very happy one and that the committee on collaboration from this conference should co-operate as may be necessary in the future along this line with the Federal officials.

William B. Harris, of the National Coffee Roasters' Association: The corps have been working along the tolerance line for over six months, not only in New York, but also in Chicago and in New Orleans, and the information that has been gleaned through this investigation has all been forwarded to Washington in the form of papers and charts for the use of the committee in preparing the draft.

The Chair: It is very necessary that these laws should be as uniform as possible, and it will only be after the National Government has issued regulations that we can do any work in that direction, because it is only now that within the last year the National Government had any laws regulating weights and measures that were incorporated in the Pure Food Law. The law up to that time only stated one subject, and that was that if the weight is placed on a package it should be the correct weight. Now the law as it has been amended and changed is practically the same as the New York State law. That New York State law is, that the regulations to be issued, but I do not believe the regulation will be issued until the trade has an opportunity to meet with the committee that is investigating the matter. And furthermore, I believe that representatives in collaboration from this organization can materially assist the trade and the consumer in arriving at the proper understanding as to what allowances should be made.

You have heard the resolution. Unless there is anything said further on the subject, it will stand approved as read.

Mr. Harris: I was informed this morning that there is a bill in Albany now that eliminates the tolerance clause in the bill.

The Chair: Yes, I know all about that. That bill I know has a clause in it which refers to weights and measures. I can't conceive at the present time that anything will be changed on the weight law, which is the most perfect net weight law today in the United States or anywhere.

Mr. Dunn: I beg to report that the resolution last read completes the report of the tentative committee on resolutions.

At 12:56, on motion, adjournment was taken until 2 p. m.

AFTERNOON SESSION.

Called to order by the chair at 2:40 p. m.

The Chair: There was a resolution adopted here regarding the food standards. We have with us, as I mentioned at the morning session, Mr. Drake of Easton, Pennsylvania, ex-president of the National Wholesale Grocers' Association, and who represents the Pure Food and Legislative Committee of that association, who will read a paper on "National Standards and the Metric System."

Mr. Drake: Mr. President, Ladies and Gentlemen: In coming to you with a paper which I desire to read rather than to make a spoken address, it is with the idea of getting before the board which you gentlemen represent here the attitude of our association on these two questions, rather than to express my own personal views, and I wish beforehand to say that this matter, instead of being original with me as to all of it, represents those views of our association.

Address of Fred. R. Drake of Easton, Pa., ex-President of the National Association of Wholesale Grocers of the United States, representing the Pure Food and Legislative Committee of that Association.

Mr. Chairman and Gentlemen of the National Food Trades Conference:

I beg to acknowledge the pleasure and privilege of meeting with you in the capacity of a member of the Pure Food and Legislative Committee of the National Wholesale Grocers' Association of the United States.

Most of you are doubtless familiar with the activities of

our association in the interest of pure food for the consumer as well as our efforts for legislation to bring this about, at the same time keeping in mind the retailer, wholesaler and manufacturer, who distribute and prepare the products for consumption.

A number of food control officers, both state and national, including Dr. Carl L. Alsberg, Chief of the Bureau of Chemistry of the United States Department of Agriculture, have expressed the decided opinion that detailed standards specifying percentages of ingredients or of chemical elements in various food products are in reality standards for sophistication, that is, rules by which the dishonest manufacturer may adulterate his product and yet not fall within the condemnation of the statute. It is clear that the enactment into the statute law of specific and detailed standards for the various food products puts an intolerable burden upon the honest manufacturer, aids the dishonest manufacturer and deprives the consumer of protection that he has under existing law.

The burden placed upon the manufacturer and the interstate merchant is emphasized by the fact that the enactment of detailed food standards in the statutes of forty-eight different states creates that number of diverse standards, necessarily conflicting, with which they must at their peril comply. Variations between states are inevitable. Colorado will not swallow the Wisconsin standards whole. California will have her own ideas as to fruit standards. Minnesota will not complacently follow Texas in fixing the precise scientific proportions of fiber, ash, nitrogen and moisture that must be found in "statutory flour." Louisiana will not copy the nice fractions that New Hampshire has fixed in her standard for molasses or cotton-seed oil. The state legislators who have for a hundred years past never agreed on the statutory grounds for divorce, or the complexion of their voters, or the control of their corporations, will not miraculously and suddenly order jam like their neighbors, or decree in unison that the refractive index for olive oil shall not be less than one and forty-six hundred and sixty ten-thousandths. We cannot hope to make human nature over nor arbitrarily to fashion the minds or methods of our state law-makers. It is not to be expected or desired that they will flout the demands of the citizens of their several states as to the standard requirements for those products in which the particular state happens to be most interested. Uniformity in state food legislation will quickly give place to utter diversity and confusion, hurtful alike to manufacturer, dealer and consumer, if the National Food Law is now discarded by the states in favor of new statutes, embodying hundreds of the most detailed food standards. The burden will fall upon no one more heavily than upon the consumer already menaced by the mounting cost of food.

The states have never enacted uniform laws, except when the United States has blazed the way by constitution or by statute. And now Congress, at the urgency of the states themselves, whose representatives deplored the lack of uniformity throughout the country and demanded federal action, has enacted and enforced a general food law. Over thirty states have adopted its substantive provisions without important change, and many others have copied it with more or less fidelity. If, without standards, it be imperfect, or if it be defective in any way, the power that was able to enact it in the face of determined opposition can and will amend and perfect it. This federal law, by virtue of its national scope and its general adoption, is now the only true basis of uniformity, and any attempt, by the enactment of state standard laws, to substitute another model, involves at the very outset the repeal of well established, comprehensive uniform statutes in over one-half of our states.

In order, therefore, that we may not have a chaos of diverse and conflicting food standards in the states, this important question should be frankly recognized as a national issue, as a problem in the first instance for the nation and not for the state. Congress must lead the way. Its action in passing the Food and Drugs Act, June 30, 1906, has accomplished practical uniformity in a majority of our states and has worked immeasurable good to manufacturers and dealers everywhere. The several states should, in justice to the food trade, entrust to the United States government the initial establishment of food standards for the American people. Neither producers nor consumers desire Oregon standards or New York standards or Maine standards. If they are to have standards, they want national standards. Conflicting requirements in various states—that is, forty-eight guides instead of one—would not accomplish standardization at all. Any state standard would, at once, lose sanction by the enactment of conflicting standards in neighboring states.

There are no physical barriers between states in the com-

merce of today, and the laws of our states should keep pace with conditions and not embarrass their citizens by enacting diverse laws upon national subjects. A product made in entire conformity with the laws of the producer's state and of the United States should be legally salable in the several states. The cardinal rule of state legislation upon commercial questions is coming to be "one law for every state."

Unjust and unnecessary embarrassment confronts the food producer in attempting to supply the demands of consumers in States having conflicting food laws; but as a majority of our States have now conformed their food statutes to the National law, this condition is rapidly improving. However, if the diversity that yet remains shall be worse confounded by the incorporation of conflicting State food standards in already conflicting laws, the lot of the food producer will be quite past hope. There will be none so wretched as to envy him.

The purveyors of food, most of whom now market their products in several different States, earnestly urge that food standards shall not be incorporated in State statutes, but we respectfully suggest a solution of the problem that will insure uniformity and also enable the various States to enforce food standards, if they should deem it wise.

First. If we are to have food standards, they should be initially framed by a National Commission established by virtue of an amendment of the Food and Drugs Act, June 30, 1906, or an independent act of Congress. The membership of this commission should include representatives of State food officials, food chemists, experienced legal officers, and the important interests in the trade itself. This plan has been admirably outlined in an article by a prominent former officer of the Department of Agriculture, published January 4, 1909, and has commended itself to many who earnestly desire uniformity of law upon this important subject.

Second. If standards are deemed necessary in any State, the State food officials should be granted the full power under the State statute to adopt and to enforce food standards in harmony with the United States standards. Provisions of this kind are now found in the laws of several States and are considered preferable to the embodiment of standards in the fixed statutes themselves, because standards adopted by the officials, under the plenary power of their statutes, may be changed, corrected or supplemented, whenever it is found right and necessary to do so, whereas a statutory standard for any product could not be changed except by a formal act of the legislature.

The standards so adopted and enforced by the State food officials could be made *prima facie* evidence in all cases prosecuted thereunder, and the enforcing officers would, therefore, have in their hands practically the same efficient means of enforcement that they would derive from the enactment of standards in the statutes themselves.

The case of *Buttfield vs. Stranahan*, 192 U. S. 470, decided by the Supreme Court of the United States in 1904, expressly held that the legislative had the right to grant to the executive, that is to the enforcing officers, the power to establish and to enforce food standards. A careful investigation of the State decisions will show that the State legislatures also have this power. In States where it has been questioned, research discloses that the act, under which some administrative power was given to enforcing officers and subsequently questioned, did not sufficiently define and prescribe the duties and powers so granted.

In stating these opinions with regard to standards, we would have you understand that these are not our individual views and expressions alone, but the viewpoint of our association asserted at various times and epitomized in these remarks. The National Wholesale Grocers' Association has been the pioneer as a National Trade Organization in advocating uniformity in National and State legislation in all matters pertaining to the grocery business and is wielding a great influence in its own proper sphere.

It would seem proper therefore to speak of our attitude at the present time with regard to standard weights and measures and our endeavor to harmonize the diversity now existing in the laws of the various States, some of which have no law bearing directly on the subject at all. Our convention at St. Louis in 1912 took up this question by advocating a national educational campaign in advocacy of the International Metric System in simplification not only of interstate but international commercial transactions and assigned this subject to a subcommittee of our Pure Food and Legislation Committee. Of this subcommittee I have the honor to be chairman. We have given this subject careful thought and study both here and abroad and had our committee visit last summer the International Bureau of Weights

and Measures at Sevres, France, where the Fifth International Conference on weights and measures was held in October of last year with 22 nations represented. Dr. S. W. Stratton, Director of the Bureau of Standards, Washington, D. C., represented the United States, which is one of the largest subscribers to the work and one of the most influential members. It is not our idea to inject here a discussion of so broad a subject, but we would like the various organizations represented here to be advised of our position on this great subject and to express the hope that our attitude may lead some of the organizations here represented to work with us in our efforts to have the metric system adopted for our business particularly, and eventually for all business. And what a glorious thing it would be if this were to be brought about by 1916 the 50th anniversary of its legalization, by the 39th Congress in 1866.

At Atlantic City last June our convention adopted the following resolution:

"Whereas, The National Wholesale Grocers' Association of the United States favors uniformity in all matters of legislation affecting commerce between the States, and deprecates the lack of uniformity existing today in different States respecting weights and measures; and

"Whereas, If we are to continue to increase our foreign trade, especially in South America, following the opening of the Panama Canal, and join in the unification of practice among commercial nations, no factor is more fundamental or important in our modern movement to place industry and commerce upon a scientific basis than a simple system of weights and measures international in its character; and

"Whereas, The experience of most of the nations of the world shows that the transition to the International Metric System need present no serious difficulty greater than those regularly encountered in industrial changes of process, equipment and materials; and

"Whereas, The widespread teaching of the metric system in our text books, its use in laboratories and shops, its legalization for all transactions by the Federal Government; its use in Porto Rico and the Philippines for all purposes; its use by the Government in all scientific investigation and in the medical work of the War and Navy Departments, the United States Public Health and Marine Hospital Service, and its use in all electrical measures; in view of all these facts;

"Resolved, That we affirm our position taken at St. Louis last year and urge the Pure Food and Legislative Committee of the incoming administration to continue this work with all vigor along lines educational to the wholesale grocer, the retail grocer and the consuming public looking to the eventual compulsory adoption of the metric system in simplification not only of interstate but international commercial transactions."

The Chair: We certainly appreciate the remarks made by Mr. Drake, and I fully agree with him in regard to the metric system. I think eventually it has to come. At the same time, we have got to see to it first that we get the different States to agree to a thing of that kind, that is, to get their support, if we are going to get the National Government to do it. I know that there has been considerable work done in Washington on the question of weights and measures in regard to the metric system, and as we are fortunate enough to have with us Dr. Reichmann, Superintendent of Weights and Measures of the State of New York, who, I think is responsible for the best law of that kind that there is on the statute books in any State, I would like to introduce Dr. Reichmann to say something in regard to the question of weights and measures. (Applause).

Dr. Reichmann: Mr. President, you asked me to prepare a fixed, set address, so I brought it with me (exhibiting one page of notes.) (Laughter). The question of a metric system is, of course, important, but it is very important to have any kind of uniformity in weights and measures to begin with; and one principal reason why foreign countries could easily adopt the metric system is because there was some uniformity in the existing systems they had, and educational work had been done, which is not the case here. I would very much like to see in 1916 the establishment of the metric system; but you and I won't live to see it, Mr. Drake.

Mr. Drake: Sorry to hear you are going to die so soon, doctor.

Dr. Reichman: I'll put flowers on your grave, Mr. Drake. (Laughter). I also take issue with the proposition which is generally advocated as an academic matter, that we ought to have uniformity and all that uniformity ought to originate with the Federal legislature. I think that the only way in which we can get constructive legislation from the Federal

legislature is by the mere fact that we have diversity in the State legislation and bring about discussion and education and get the people to recognize them, and that's the way we get intelligent Federal legislation. Otherwise it would absolutely bar progress. Of course, I recognize there are a great many who would like to have all questions left to Federal legislation, because it is a more convenient proposition; but it is certainly not a progressive proposition, and while it is true that we have never had uniformity in almost any regulative legislation until we have had Federal legislation, yet it is also true that we have never had constructive legislation until the State of New York passed some legislation on the subject. That, of course, is perfectly natural. That isn't simply because I am in New York, but simply a natural proposition, on account of the size of this State. I think that's true of the pure food law. I think that's undoubtedly true of the amendment to the pure food law in relation to weights and measures. That would never have been passed in 1912 if it had not been for the amendment to Chapter 81 of the weights and measures law of this State.

The great difficulty with the pure food proposition has been that weights and measures, although it is a simple and fundamental proposition, has not been given the time and thought that for instance food legislation has; and I daresay there are very few who ever looked upon weights and measures from a purely economic standpoint. Most of the legislation has come by copying something someone else has done, irrespective of whether it fits or not, and sometimes a very small development in the technical line of weights and measures, but hardly ever looking at it from a broad economic standpoint.

There was a matter brought up by the previous speaker in relation to the diversity of bushels, and I am going to touch upon that in a minute. A resolution was adopted at a so-called national conference on weights and measures in Washington; I think I was the person who first suggested that eight or nine years ago, and there are very few in that conference who really are interested in the subject from an economic standpoint, but a resolution was adopted there to have a uniform standard of weight per bushel of various commodities. That seems reasonable on the face of it, yet when you begin to analyze it you find that a ridiculous proposition. The Federal Government adopted a certain fixed standard of weights and measures of certain commodities for the purpose of listing. When a cargo of some commodity comes in it is billed or ordered by bushel; we will for simplification say that a certain number of pounds shall represent a bushel. It would not have made a bit of difference if, instead of sixty pounds to the bushel, they had said one hundred or one million, it would have been exactly the same thing. A number of States took up the proposition of crabapples and said there should be a certain number of pounds to a bushel. Another State took a certain number of pounds of Baldwins and said that should constitute a bushel. The same with beans. Just try to establish a standard weight per bushel of beans; you have got as many varieties of beans as there are people in this room. And furthermore, their weight depends upon the season.

Consequently, why not eliminate the whole proposition and sell simply by weight? That is what many of the States have done. Or else simply require them to be sold by weight; don't call it a bushel, but sell by the hundred pounds, say. That is the way most beans are sold today. I have persistently fought bills trying to establish the weight per bushel of anything. They have introduced in Massachusetts a bill fixing the weight per bushel of fine salt. There isn't a bushel of fine salt sold in Massachusetts. Seventy-five years ago fine salt was sold by the bushel, but they don't sell it that way any more. But this was for the sake of uniformity. If we look upon weights and measures from a broader standpoint, all weights and measures of any kind, either from a purely technical point of view or from the standpoint of the quantity delivered, we see that weight and measure is one of the two elements of specifications, namely the quality is one and the quantity is the other. The quantity delivered should be known to the person who buys the goods within reasonable variations of nature. No honest person can object to that.

And that brings me to another very important discussion which I think is important to emphasize. There are a number of people who are or are supposed to be interested in weights and measures who say we ought to have fixed standards and that commodities should be sold only by those standards and in no other way. It would be a great simplification for the distributor. As a matter of fact, it would eliminate the wholesale grocer. You wouldn't need him any more. It would be a simplification for the manufacturer and would be

a simplification for the consumer to sell liquid commodities only in gallons, quarts, pints and half pints and allow them to be sold in no other way; other commodities only by pounds, multiples of the pound, and sub-multiples of the pound divisible by two. That sounds good on the face of it, but as a matter of fact it is not equitable, as a matter of fact, it is not fair. If you will think for a moment you will see all the confusion that would be created. I maintain that the only equitable proposition we can ask anybody to do is to say: "Make a clear written or printed or any other kind of representation of how much is delivered, and if I want to buy 13 ounces of a thing I want to get 13 ounces, and I won't want to get 16 ounces and throw the other three ounces away, and I don't want to get 17 or 18 or 20 ounces; but if I know how much I am getting I can't see why that's not the fair and equitable transaction and the only kind that will not lead to confusion. There is a radical difference of opinion on that proposition. The statute which was passed in this State in 1912, which I believe is the broadest weights and measures law that is in existence anywhere in any State or any country, as far as that is concerned, does absolutely nothing except to say that any kind of commodity, food commodity or drug or hardware or twine or any commodity you may want, typewriters, pianos or electrical machinery, chairs or anything else, must be accompanied by a representation within reasonable limits of how much is delivered. In other words, reasonable variations are allowed and administrative discretion is allowed in fixing the amount of reasonable variation. That to my mind is an ideal weights and measures law, and it hits at the very root of the evil, namely that where you have not such legislation no representation is made, and consequently you can never stop short weighing and short measuring. You can stop it absolutely under the provisions of that statute. Why? Because within reasonable limits the man must make a representation, and having made a representation, if he is excessively short we can prosecute him. Otherwise we could never do it. And that same sort of legislation, I maintain, ought to be enacted in other States and ought to be enacted in the Federal legislation, not only as applicable to foods, but as applicable to all other kinds of commodities. Conscience knows we don't only eat! As a matter of fact, it is one of the smallest items of expense of the average person, the matter of food. That is one side.

It is not my official duty, nor have I the time to take up the other side, namely the quality side. The same principle ought to be embodied on the quality side of specifications of all commodities delivered. You can talk about your food laws or your Federal food and drugs act or any other State food and drugs act; but if you simply have the statute say that a person shall make a clearly understandable representation of the quality of the goods delivered, and appoint a commission with discretionary power to determine whether that is a plain statement of the quality, you will have solved your difficulty without any technicality or anything else about it.

But the great difficulty is that there is a lot of opposition, not only from the crooks, mind, you, but opposition by honest men who are misled. Any person can cite you hundreds of instances—any person who has made a study of the proposition—of regulative legislation affecting various corporations and individuals which has been opposed by perfectly honest, straight people with the best and sincere intentions, yet which when it was enacted and enforced benefited them. For instance, now we have a bill in the legislature placing all railroad track scales under the supervision of the State. It is being fought by every railroad in the State. I hope the bill will pass. It ought to pass and it is going to help the railroads more than it would anybody else, though they are opposing it. But it's a question of equity and fairness, because they will make them give within reasonable variations the weight of the goods they are hauling and also the consignor and consignee can tell how much he is paying for his freight and how much it weighs. There was the same proposition in Minnesota. A bill of this nature was fought by the Great Northern railroad and every railroad up there. The bill was passed, and last year somebody introduced an act to repeal that law, and the railroads in turn appeared in opposition to the repeal, because, said they, "We were opposed to this originally, but now it is in operation we find it is of great benefit to us, because we know where we stand." And that's all the manufacturer of any commodity, food manufacturer or any other kind of manufacturer—they all look alike to me—ought to demand. If I make a purchase of a man of 1,000 shoes I want to see that he is selling 1,000 shoes and not selling 860; and if he is going to sell 100 pounds of peasoup I want him to sell 100 pounds, within reasonable variations, let it be 98 or 102 pounds, say, but not 70. It is the same proposition,

the same principle. That same principle exactly ought to guide the quality of commodities, not only foods but clothing, shoes, furniture, flours, millinery, dress goods, any kind of commodity, building material, what not.

Under the provisions of Chapter 181 of the Laws of 1912 we have formulated certain regulations in relation to the various kinds of commodities. When we first established those regulations we found a number of them were stringent. We found a number of them that were entire too loose. We had a year and a half and we had the data from thousands and thousands of people, and I think we made equitable, fair variations. I will tell you of a peculiar instance in relation to glass bottles, which is only one out of a hundred. You probably know that there are glass bottles made in various ways—some are hand-blown bottles, some semi-automatic machine made, and some absolutely automatic machine made. There is an agreement between the glass bottle blowers in the United States and Canada and the glass bottle manufacturers. They have an agreement as to tolerance on the way to the bottle. They have worked under that for years. It seemed to me only fair that that would substantially represent the state of advancement of the art of glass blowing and bottle making. Of course the absolutely automatically made bottles were a great deal closer to standards, but if we fixed our variations by the absolutely automatically made bottles we would absolutely give a monopoly to one concern, which of course is not contemplated under the law and would have been unjust. We then found that the glass blowers were perfectly agreeable to that proposition, the manufacturers and the interests were perfectly agreeable. I then had a great number of tests made, tested over six thousand bottles in various places and of various makes and shapes. I found that they did not come within a row of apple trees of living up to the agreement under which they were working. I then took up the matter again with the glass blowers association and the representative of the glass bottle manufacturers, and they then made tests and found that they did not live up to their agreement. So I changed the regulation so as to come up to actual facts and suggested to them that what they ought to do was to make an agreement which was right and equitable. In other words they were simply deceiving themselves by living under an agreement or purporting to live under an agreement which they did not live up to. That is one out of hundreds of instances of difficulties. There was a manufacturer of some kind of commodities concerning whom we had hearings and told him to submit to us data which we would like to be governed by, and he hemmed and hawed and we could not get anything out of him, so we finally said, "Well, there is more than one way of killing a cat." And we fixed a regulation and sent it to this particular class of manufacturers which we knew was so stringent that they absolutely could not live up to it. And they had to tell us the reasons why they could not live up to it, and in telling us the reasons they had to give us all the data that we wanted in the first place.

Those are all minor administrative difficulties which all, however, unfortunately take time. The State cannot eliminate them, mind you, without your co-operation, and it is meetings of this kind which, to my mind, absolutely formulate regulations. It is meetings of this kind that create such constructive legislation, far in advance of a perfunctory committee hearing in congress or in the legislature. Your counsel gave me a book which marked the weight per bushel of hundreds of kinds of commodities, showing onions, varying from one thing to another, and coal and salt and potatoes and one thing and another. I think I have discussed that.

Don't advocate legislation which fixes the weight per bushel of certain commodities. Forget that. Suppose you have the weight of a bushel specified by statute: if I am going to sell Sam Jones forty-two pounds of potatoes on a representation that it is forty-two pounds and there is forty-two pounds, I don't care for all the laws in the land, whether they say that sixty pounds shall be a bushel of potatoes. And that's all there is to it. Simply requires a different representation. And in conclusion, if any of the regulations promulgated by the state department of weights and measures are too lenient, please let us know and give us reasons why. If they are too stringent let us know and give us reasons why. And we are going to change them as far as we can to meet conditions of this—what was this term—"trade custom," to meet legitimate trade custom. I believe in trade custom. Trade custom is a thing that makes law. And if they don't agree with legitimate trade custom they are not for the benefit of the consumer. Because, when all is said and done, we are representatives of the people, that is, the officers entrusted with the enforcement of law are representatives of the people, and everything which

does not make for equity in dealing and which does not conform to good honest legitimate trade custom necessarily means a burden to the people.

I thank you, ladies and gentlemen. (Applause.)

The Chair: On this morning's program we had one of the speakers, Mr. Charles Thaddeus Terry. Mr. Terry is at present with us here and will speak on the question of uniformity. Mr. Terry is president of the Conference of Commissioners on Uniform State Laws. I believe that he certainly represents one of the great links in the form of legislation that we need to have to perfect legislation in regard to food—in fact, anything that applies to business interests. We will be glad to have Mr. Perry step up here. (Applause.)

Mr. Terry: Mr. Chairman, Ladies and Gentlemen: I wish to express my gratitude for this opportunity of saying a word in behalf of uniformity of laws generally; and if you will permit me to draw a few illustrations from those things you represent I will then have finished. I have never pretended to any efficiency in public speaking, but I have always subscribed to three cardinal principles about it. And the first, second and third of those principles are: The one who has to say anything should stand up, so that he may be seen; then speak up, so he may be heard; and then shut up, after he has made his point. My point is that uniformity of law is common sense; that if in this country we are really a nation—and it doesn't make any difference whether we are to be regarded in the national aspect as in industry or in professions or in sociological work or in political work—if we are really a nation, the laws relating to the rights and duties of individuals should be the same for one portion of this country as for every other portion. It cannot be that there is such a difference of sociological conditions arising from difference in geography that what is right in one section of the country should be wrong in another, or conversely that what is wrong in one section should be right in another. It isn't possible. In other words, the law I take—and I hope you won't think the worse of me for being a lawyer—to be a science, not of geography but of justice. The law in its effects upon human rights and liabilities and duties should be governed by those imaginary lines which happen on the map to divide one State from another State—and that the subject which for a moment I wish to present to you.

Let me, if you will, make you acquainted with the Conference of Commissioners on Uniform State Laws. It's a national body, formed of the commissioners in each State, from three to five, appointed by the governors of the respective States, meeting in annual conference at some place designated in advance, to consider and sum up and pass upon officially the work which has been done by its various committees during the year. That conference originated in 1890. It has therefore been at work something like 24 years. I can't better illustrate the conservatism, the deliberation, the caution which has marked the work of the conference than by telling you that in all that time, although perhaps a hundred or more proposed uniform laws have been considered, the conference has actually promulgated but ten. I refer to those laws; a reference to them will indicate to you the varied nature of the work of the conference, as divided between commercial interests on the one hand and social or domestic or private interests—if you may choose to call them so—on the other. Those ten laws will indicate to you by their names the work of the conference thus far. They are: the law called the Negotiable Instruments Law; the law called the Warehouse Receipts Act; the Sales of Goods Act; the Stock Certificates Act; a uniform Marriage and Divorce Act, which grew out of the National Divorce Congress in 1906, which many of our commissioners were appointed by their respective governors to constitute; and finally a Marriage Evasion Act. Those acts, intended to unify the law of the various States on the subjects indicated in their titles, as you may well imagine created, when they were first proposed, the utmost opposition and skepticism, not to say sneers. The proposition was that you never can have absolute uniformity on any subject. It is queer that anyone should announce such a proposition, because the statement is as superficial as it is pointless.

It is superficial because the beneficence of work for uniformity does not depend in any large degree upon the question of whether you can ever have absolute uniformity. My proposition is that some uniformity is better than no uniformity; and I say that the proposition that you never can have absolute uniformity is pointless because nothing depends upon it. Any man may state any proposition, but it's obvious that the only way to test this proposition is by an actual trial. And that the Conference of Commissioners has been making for 24 years. If refutation of the proposition were needed, you have it in the fact that for example the Negotiable Instru-

ments Act has been adopted as the law in 46 States of this Union. It has been successful in unifying the law in that important branch of it. It's obvious that bills of exchange and notes of checks and drafts go all over this land; and what an absurd proposition that the obligation assumed by the maker of such negotiable paper should be one thing in New York and another in Illinois, and another in California! It reaches almost the height of ridiculousness. And yet such was the law before that branch of it was made uniform in that act, drawn, promulgated and passed in 46 States by the Commissioners on Uniform State Laws.

The next act was the Warehouse Receipts Act, and that has become the law in 30 States of this Union, although it was only promulgated five years ago by the Conference of Commissioners. I will not refer to those acts which have been adopted by the various States in proportion as they have been years old from their issuance from the conference.

Two suggestions and then I will not try your patience any further. Suppose that you had a railroad in New York, the New York Central railroad, running on rails of a gauge of four feet, and suppose all the railroads in Pennsylvania were of a gauge of four feet four inches, and all the rails in Maryland were a little short of four feet, and all the rails in Maine were five feet: what a chaotic condition of business there would be here! You couldn't start anything in New York or Maine which could go into the interior part of the country. Freight would not go and passengers could not go. You would be absolutely limited in your intercommunication and your interstate business by the fact that at a certain point there was an imaginary geographical line arising from the different gauges of the railroads. But that would be no more ridiculous than to have a law in New York affecting any vital interest, either social or industrial, or men and women, and another law with a different aspect defining different rights and duties in the adjoining State of Pennsylvania and the distant State of California. The one would be as sensible as the other, and one of them should not be allowed to exist any more than the other.

You take the question of marriage and divorce, that has been so frequently pointed out. A man may be married in New York, he may be a bigamist when he gets to Illinois, and he may have no wife at all when he gets to Nevada. And yet this is a nation. This is a nation. We are one people. Hence what we regard to be the vital necessity of constant, everlasting, patient, conservative, deliberate work to unify the laws not only with respect to social improvements but with respect also, and perhaps of equal importance, to industrial matters. Our child labor act: men felt themselves aggrieved when a statute was passed in a State strictly regulating the employment of children in certain industries, because, said they, "We don't care except that it puts us to the inconvenience of moving, and we will move over a State line where they haven't reached that point of reform." And that's true. That's what they could do. So what's the use in this nation of having a statute governing a domestic relation, a sociological relation in one State, if it isn't uniform throughout all the States? Fairness demands it. Fairness to business, fairness to society demands it; and it would seem to be the proposition that common sense alike defines it.

It's a difficult proposition to unify the laws of the various States, I anticipate. There are a great many of them, and one runs constantly against the stone wall of what people are pleased to call "State's rights." Why do you come to us and say that because of the State of New Jersey for instance has a certain statute we should pass it? "We are independent, we are self-respecting, we have views of our own," say the inhabitants of another State. Well, of course, all you have there is a misnomer. That isn't an insistence on State's rights; that's an insistence on State's wrongs. Because if any State so far forgets its relations to all the other States; if the people of any State so far forget that they cannot live unto themselves alone as to insist that they shall maintain among their institutions laws which are against the tendency of human feeling or sentiment on any subject; if they choose to be arbitrary and attempt to live within their own particular geographical lines, then so far do they accentuate the tendency which is so much deplored in some circles, and in those very circles, those very States, of a centralized government. It's the only alternative. If the States will not make their laws uniform so far as affects the general welfare of all the States, then they are simply giving encouragement to a centralized government. If the States won't do it the central government is going to do it. That's inevitable. And we are going to have uniform laws one way or the other, because uniform laws are common sense.

Now, ladies and gentlemen, I bespeak your interest not

only in regard to the uniform laws with regard to the things which appeal to you, but in the work which the General Conference of Commissioners on all sorts of uniform laws is attempting to do for the country. They do it without compensation. They do it frequently at an expenditure of their own means for the traveling and other disbursements. They are furnishing services which could not be bought, because they would not sell them. And in that work I bespeak your co-operation, to the end that the people of this nation may not only be governed by uniform laws which affect them in their family and in their business, but to the end also that there may be that thing which is so much misused but which is nevertheless a sound proposition for this country, namely fair trade. And I submit that Federal laws won't do it, after all, and if they do do it they do it not nearly so effectually as uniform State laws. You have to go no further than the decision in the bleached flour case the other day. When a statute like that is—of necessity, perhaps, because it is so drawn—emasculated, then the law of the whole country is gone; but if you had taken a persistent effort and made the law of all the States uniform on it, one decision like that wouldn't leave us stranded. So, which ever way you look at it, I think you will come to the conclusion that State uniformity of law is the thing which must in the end be the foundation of business no less than of society. (Applause.)

The Chair: We have with us a lady who is very much interested in legislation, so much so that she represents the Legislative Committee of the New York City Federation of Women's Clubs and the New York State Federation of Women's Clubs. Miss Mary Wood will address you. (Applause.)

Miss Wood: Mr. Chairman and members of the Conference: I am not going to make an address; just a little plain talk. The first act of your chairman this morning was to hand me a list of the members of this association, and I looked it over very carefully and I saw names which had hitherto, in my mind, been respectable, and had been of repute, and (with sarcasm) it is difficult for a mere woman, standing here, to realize that she is looking in the faces of malefactors, poisoners of innocent children, and that you represent here a band of organizations who are combined to put into your products, which go to make up the necessities of life for the home—that you are banded together to put into your own products the deadly poisons and preservatives which are going to strike at the very foundation, not only of the health of this generation, but of all future generations. (Laughter.) It's quite difficult, Mr. Chairman, for me to realize that. Now, women you know have under their care the three fundamentals of the home: what we shall eat, what we shall drink, and wherewithal we shall be clothed. In later days, with a few sporadic attempts on the part of some clergymen and a few legislators, this question of clothing has been left to the women. A former speaker suggested that the quality of clothing should have a little legislation. Now, we have observed in our travels about, that in the last years or two attempts have been made by legislators—not in New York State, because our legislators here are a very shrinking, timid set of men and they haven't the courage of the Massachusetts and the Pennsylvania men; you will remember, your Massachusetts and Pennsylvania gentlemen, that some of your men have attempted to introduce bills there to eliminate clocks upon the stockings of women, and also to pass upon the width of their skirts and the density of their lingerie waists. Perhaps you recall these. We women have noted them and I don't know just what committee those bills were referred to, whether on General Laws, or Domestic Relations (Laughter); but wherever they were introduced, certainly the husbands of some of us and the brothers and the sons of many of us were also members of that committee, and those bills were strangled in their birth. They never got out of the committees.

We women have of course been called for generations the conservators of the human race. We believe in pure milk and pure food, pure everything that enters into our home consumption. But I would like you men to understand that we also believe in the conservation of the business interests of this country. (Applause.) We as a class are appealed to by legislators and by all sorts of committees, all sorts of organizations, composed, I am sorry to say, of men who think they can work upon our sympathetic hearts and our sentimentalities—not upon our sentiments, because I think as a class women are full of noble, high moral sentiments, but some of us are hysterical and sentimental, and we are appealed to more than I can express to you, more than you would quite understand, to support this or that measure, because somehow the impression has gone abroad—I don't know how—that if

you get the women back of a movement it's going to move. There are some of us, you know, very sane and very conservative. And we deplore the muckraker, we deplore the professional agitator, man or woman. We consider them a menace to our society. And this question of pure food has been agitated, sometimes wisely and sometimes unwisely. As women we realize, and we know from our dealings with our unfortunate sisters, that there is more menace today in the administration of drugs than there is physically or socially or economically to our nation; more danger than there is from any substance that you men could introduce into your candies or your food products. We are perfectly conscious of that.

As your chairman stated, I represent the New York State Federation of Women's Clubs. We have several hundred thousand in it, four or five hundred thousand with the affiliated clubs. It is also my honor to be vice chairman of the Legislative Committee of the General Federation, where we have a million of women, and these women come from every State in the Union, and their representative could not be here today, and I am going to briefly state to you some of the sentiments of the General Federation, because that embraces really the sentiments of women all over the country.

Reference was made here this morning, and we had some fine addresses, on the difficulty of getting a constitutional law, a law that would bear the test. Some of us women have always thought it was the simplest thing in the world. For instance, to teach religion a man must have religion in his heart. We had supposed that to draw a bill, to frame a bill, or to enforce a law, or even to evade it, a man must have some knowledge of the law. Well, we found out today that that isn't so at all; that our legislators are just simply human beings like the rest of us, and that they are liable to make mistakes. One thing we are sorry to see, and that is, we read about a famous lawyer who appeared before the Industrial Commission in Washington a day or two ago. He is a man, if I am right, who comes from a country where penal servitude is the most infamous of any country in the world. And this man appears here in this free United States before an industrial commission and advocates that the employers of this country shall be penalized if they work their employees half time. I sometimes wonder what you men are thinking about when you permit these things, when you permit the utterance of such ideas as this. Of course, that was modified. I have stated it baldly, without any of the extenuating circumstances which he afterward introduced. But I don't know—we, the American people, are a sort of scandal-lovers. We like to look around upon each other and say to ourselves, "What an awful man or dreadful woman you are." And the tendency of the modern time is to attack and assail those who are not only in authority, but those who are carrying on the big interests of this country. We must not forget, men and women—and I am more accustomed to talking to women than to men—that these men are human, we are all human, and that our country has been developed and has reached the state it has because there has not been so much legislation.

We have a lot of calamity howlers in Washington. I saw big headlines in the paper that the Federal pure food law had been killed because of this decision of the Supreme Court on that bleached flour case. We know perfectly well that law is not killed. It may be scotched you know but it is not killed, and like the phoenix it's going to rise from its ashes and it's going to be perfected.

This letter I received last night from a member of the General Federation who has attended some of your conferences, and I just want to say briefly that the General Federation of Women's Clubs is heartily in sympathy with the efforts of the present administration in the Department of Agriculture, and the letter speaks specifically of the work done by Dr. Alsberg, the head of the chemistry division, and that the federation deplores the constant attacks upon our State and Federal officials, believing them to be in the main unjustified by facts: "We do not believe that constant newspaper agitation, which to a very great degree leads to misrepresentation of actual conditions, is either constructive or helpful. We believe that the situation needs careful educational work of a constructive character rather than constant destructive criticism inimical to the progress of any work." We believe in an educational system just as it has been suggested here today. We want these uniform laws. We are with you in that. But we must go slowly. What is the use in pushing through laws which simply seem to afford a sort of ground for the profession—I wouldn't like to say what profession, but you do know that we do fatten, some of us, upon the mistakes of others. We believe that we ought to have the right to demand safe food, properly guarded, but it

is not right that we ask for such legislation as will raise the cost of common necessities beyond the reach of the laboring class. How many women, when they are asking for legislation and agitating for new laws, think about the laboring class? It's all very well for you—not for me—but for you, to pay ten and twelve cents a bottle for your milk—but how about the man and the woman who can't pay that?

I want to tell you, gentlemen, I am a farm product myself. (Applause). And I look around here and on the audiences every place I go, and I fail to see that our American people have been greatly affected by these awful things that we find have been put into our canned goods (laughter and applause). Now, it's unnecessary for me to state that I am not speaking in the interests of any canning factory or any commercial interest. I don't own any stock. I wish I did, but I don't. I am simply speaking from what I call the same woman's standpoint. And a lot of us are sane, and many of us who are thinking on these questions consider (and I wish that the men who agitate these questions—of course I know there are just as many professional agitators among the men as among the women—would also consider) how they are raising the cost to the poor people of this country by the standards which they demand. We want things clean, we want them pure, but, gentlemen, I can't see that we are in any particular danger at the present moment from the harmful products that are put out by your firms, or any other firm, milk dealers or anybody else. We have been drinking milk for generations here. I can't see that many of us have died from it. There has been a great stress laid upon the infant mortality in New York City due to impure milk. How many people stop to think of the homes that those children come from, of the heredity they have brought from the other side? If a lot of this agitation were directed to just closing our ports of entry here for just five years, I think we could safely swallow a whole lot of things, inclusive of drugs, that we are afraid to touch nowadays.

In closing, anything this Federation or the General Federation can do in collaboration with you toward securing uniform laws, we shall be very glad to do. (Applause).

On motion duly seconded, a standing vote of thanks was tendered Miss Wood for her "clever, encouraging and intelligent remarks."

H. L. Harris: Just one word about food preservation. Miss Wood mentioned food preservation in the first part of her address, and I want to say that it is absolutely essential to preserve food in some manner and that there is no reason to believe that the ancient preservatives that have been used for ages are beneficial to mankind and the modern preservatives are deleterious to mankind. It has recently been disclosed in one of the medical journals that the mortality from heart and kidney diseases has increased in the United States 108 per cent in the last thirty years, while it only increased three per cent in England in the same period. England has eaten meat preserved with borax for years, butter preserved with boric acid, cream preserved with boric acid. It has been lately disclosed in medical journals that the average American consumes 300 grains of salt per day, and but 15 grains are utilized by the human system. This leaves remaining 285 grains of a foreign mineral substance that must be eliminated, principally through the kidneys. We know the effect of salt on iron. We know that salt is a dehydrant, we know that when used on meat it hardens the muscle fibres and renders the food harder to digest. Is it unreasonable to suppose that the excessive consumption of salt is responsible for the increased mortality from all heart and kidney diseases in this country? There have never been any scientific or unscientific investigations to determine the effect of salt, mustard, vinegar and spices on the human system. If experiments were conducted similar to those with benzoic acid and boric acid I am confident that the investigators would find that the ancient preservatives are far more deleterious to the human system than the modern.

About a year ago I had a clipping from San Francisco wherein it stated that a woman had been purchasing what was called "Elixir of Life." She had used that for twenty years and paid \$2 a bottle for it. The pure food officials stepped in and analyzed it and found it was a borax solution. Professor Bourdeaux (?) took borax for months for his health. I have taken a teaspoonful of a borax solution in a glass of water daily for over three years, and I am in a pretty healthy condition. And, as you say, it is absolutely essential to preserve food in *some* method, and by *some* method, and by *some* method that is effective. The U. S. Supreme Court decision in reference to the bleached flour will necessitate the prosecutors' proving that a substance is deleterious when used to preserve food—not whether the sub-

stance is deleterious by itself, but whether it is deleterious when incorporated with food. (Applause.)

The Chair: We have with us Mr. Porter, the president of the Shredded Wheat Company of Niagara Falls, one of the officers of our association and one of the original members when we organized in this hotel six years ago. Mr. Porter will favor us with a few remarks from the manufacturer's standpoint in relation to the food question and uniformity of laws. (Applause.)

Mr. Porter: Mr. Chairman, Ladies and Gentlemen: I came here today without any preparation and without any idea of being called upon to say anything. With that preamble, I trust my hearers will be kind and considerate. As a member of the American Specialty Manufacturers' Association, as a member of the National Civic Federation and being actively interested in manufacturing, I am heart and soul in favor of all that can be done to bring about absolute purity in the things which are being produced, being put out to be used by the public generally. There is no one thing in which the American people are so deeply concerned as in the conservation of national health. It means everything. It's the one great asset of our country. If we can have people, if we can have a generation growing up in this country clear headed, judicial of temperament, able to act without being carried away by foolish sentimentality or by the mere passion of the hour, it is going to make us a people that will be even more pre-eminent in our position among the countries of the world. The whole keynote of that condition lies in what we consume.

If we are given clean, pure, wholesome food the result is obvious. We can then do the man and woman's work. If we don't have it we degenerate and we become unable to carry on the task that lies before us as citizens of this great country. I believe that the time has come in our national history where the lawmakers of the country are going to consult the business interests in the framing and planning of legislation which is required. There is going to be a submission of the question of the day to organizations like the Chamber of Commerce of the United States; those which pertain to the great drug industries, to the drug associations. Matters of legislation are going to be taken up with the bodies which come in contact with the actual carrying out of the practical working of the trade which is affected. That being the case, a conference of this kind is going to be tremendously far reaching in its effects. It is going to bring together the different interests very widely spread apart in some ways, and yet interests which are working for one end, and that is a measure, a measure which shall be so similar in each State of this country, and, if possible, as well in the Federal legislation, that as the previous speaker said the railroad which begins in New York State shall have no difficulty in carrying its car across the country and delivering it without changing the rail in California.

I know of no work which is more inspiring than this—trying to accomplish uniformity of laws, acts which will save us from suffering different penalties in different parts of our country; and I know of no one who is better able to lead the ship along proper lines to that end than the chairman of this meeting. Ladies and gentlemen, I thank you. (Applause.)

The Chair: Ladies and Gentlemen: This is our third meeting of this conference. We have got to a point where we must organize permanently, and for the purpose of perpetuating this work until we have reached the goal which we seek, we have prepared a code of rules and regulations so that the National Food Trades Conference shall from now on be a permanent organization with the views which we have promulgated here and with the encouragement which we have received from all the interests, from the manufacturer down to the consumer. There is no doubt in my mind that we are prepared to carry out this work successfully, and now that we are engaged and have been so successful today, Mr. Dunn, our attorney, who is the attorney of the American Specialty Manufacturers' Association, and has kindly given a great deal of his time to the perfecting of this organization and the carrying out of this work, will now read the code of rules and regulations which we intend to adopt here so as to make this organization permanent and effective.

Mr. Dunn: Mr. Chairman, Ladies and Gentlemen: This code of rules and regulations was prepared by the committee selected by the chairman by authority of the resolution adopted at the last meeting of the National Food Trades Conference in Atlantic City in June. This conference today has pledged itself and taken action by form of resolution which we believe is constructive and is going to accomplish a great deal of good. The work of the conference can only

continue through a permanent organization. The American Association of Dairy, Food and Drug Officials, embracing not only the Federal but also the State officials, has formally recognized this conference and invited it to appoint a committee on collaboration, this committee on collaboration to meet with the Federal and State authorities, at their annual convention in Maine in July next, and any propositions which may be advanced, such as the proposed amendments to the National law, will be carefully considered by the committee of this conference and the officials, State and National, so that an agreeable and an amicable position may be taken, which is suitable and agreeable to all concerned,—the consumer, the trade and the officials.

This conference represents the two elements, the trade and the consumer, as against the State and national officials and their official association. This code of rules and regulations is based upon a similar code of rules and regulations of the National Drug Trades' Conference, which was organized about a year ago, and you will see that it binds no constituent organization to any action of the conference unless such constituent association desires to be so bound; but it enables us to appoint our committees and to go ahead and carry on this work, which is the main proposition:

CODE OF RULES AND REGULATIONS OF THE NATIONAL FOOD TRADES CONFERENCE.

NAME.

1. This organization shall be known as THE NATIONAL FOOD TRADES CONFERENCE.

ORGANIZATION.

2. The conference shall consist of not more than five regularly accredited delegates from each of the National Food Trades' Association.

OBJECTS.

3. First—That the various national food trades associations meet in a public National Food Trades Conference, annually at least, to consider together subjects of general interest, relating to the food control laws and regulations, to encourage the greater uniformity of efficient food control laws and regulations and to aid, generally, in attaining purer and better foods, honestly and properly labeled and advertised.

Second—That the National and State and Municipal Food Control officials, the Committee on Purity of Articles of Commerce, Uniform State Laws Commission, and the various civic and other organizations representing the public generally and interested in this common subject, be invited to participate and share fully and freely in this conference, to the end that the subjects discussed may be considered from every standpoint in the final interest of the manufacturers, distributors and the general public.

Third—That the conference will not assume to express the views of, nor to bind its respective constituent associations, except in so far as it may be authorized so to do by such constituent organization.

OFFICERS.

4. The officers of the conference shall consist of a president, four vice presidents and a secretary and treasurer, and be elected by ballot by a majority vote of the respective constituent associations duly represented at the meeting of election. The officers so elected shall hold their respective offices for one year and until their successors have been duly elected.

The president of the conference shall preside at all meetings of the conference. In the absence or inability of the president the vice presidents in the order of precedence shall perform the duties of the office of president. The secretary shall take the minutes of each meeting of the conference and perform such other duties as are customarily performed by such an officer. The treasurer shall be authorized to levy from time to time, as necessary, upon each constituent association represented in the conference a proportionate amount (not over \$25 per year) sufficient to meet the incidental expenses of the conference and to report thereon at each meeting.

COMMITTEES.

5. There shall be two committees, an executive committee and a committee on collaboration.

The executive committee shall act as a committee on credentials, and shall direct the work of the conference during the intervals between the meetings; provided, however, that no action shall be taken by this committee other than that authorized by the conference at a regular meeting without approval obtained by a referendum vote and subject to all the conditions to which the action of the conference is sub-

ject and the action taken by the executive committee shall be subject to review by the conference at the next regular meeting. The executive committee shall be composed of the officers and three members at large elected in the same manner as the officers.

The committee on collaboration shall co-operate with the Federal and State Food Control officials, the Uniform State Laws Commission and the various civic and other organizations with kindred aims and endeavors to carry out the objects of the conference under the direction of the conference as previously described.

The committee on collaboration shall be composed of the officers and three members at large elected in the same manner as the officers; provided, that representatives of civic and other organizations whose objects are in harmony with the objects of this conference may be represented on this committee to such an extent as the conference may determine.

MEETINGS.

6. The meetings of the conference shall be called by the president upon the request of the executive committee and written notice of not less than ten days shall be given of the time and place of such meeting. During the intervals between meetings the business of the conference and of the executive committee may be transacted by mail as previously described.

7. Except as herein otherwise provided the generally accepted rules of parliamentary law shall govern the deliberation of the conference.

8. These rules and regulations may be amended at any regular meeting providing that written notice of such an amendment be given in the regular notice for such a meeting duly called and shall require a majority vote of the constituent associations represented for adoption.

OFFICERS.

President—Louis Runkel, American Special Mfrs. Ass'n.

First Vice President—H. W. Hoops, Nat'l Confectioners' Ass'n.

Second Vice President—Theo. F. Witemarsh, Nat'l Wholesale Grocers' Ass'n.

Third Vice President—W. M. McCormick, Flavoring Extract Mfrs. Ass'n.

Fourth Vice President—C. F. Mueller, Jr., Nat'l Ass'n of Macaroni and Noodle Mfrs.

Secretary-Treasurer—John A. Green, Nat'l Retail Grocers' Ass'n.

EXECUTIVE COMMITTEE.

The above officers and

Mr. A. P. Husband, Millers' National Federation.

William B. Harris, National Coffee Roasters' Association.

Representative of Oyster Growers and Dealers Association of North America.

COMMITTEE ON COLLABORATION.

The above officers and

Charles Wesley Dunn, American Specialty Mfrs. Ass'n.

Helen Louise Johnson, Chairman, House Economics Department, General Federation of Women's Clubs.

Mary Wood, Chairman of the Legislative Committees, respectively, of the New York State Federation of Women's Clubs and the New York City Federation of Women's Clubs.

The Chair: Ladies and Gentlemen: You have heard Mr. Dunn read the proposed code of rules and regulations and the names of officers for the ensuing year of the National Food Trades Conference. I will state that unless there are any objections these regulations as read will stand approved. If there is any discussion on these code regulations I would like to have any one of the members of the conference speak on the subject.

Mr. Dunn: I would suggest that as the Code of Rules and Regulations provides for the election of these officers by ballot, the secretary be instructed to cast that ballot for the conference. I make that motion.

Motion seconded.

The Chair: You have heard the motion of Mr. Dunn. Any remarks?

Motion put to a vote and unanimously carried.

The Chair: We have with us Mr. Thomas P. Sullivan of Chicago (applause), who is a member of the Illinois State Food Standards Commission. (Applause.)

ADDRESS OF T. P. SULLIVAN.

Mr. Sullivan: Mr. Chairman, Ladies and Gentlemen: I came from Illinois, and as I heard Miss Wood's address here I felt doubly proud that I came from Illinois, because we grant the ladies there the right to have a voice in our legis-

lation. (Applause.) I believe that the salvation of the large cities is to extend to the ladies the suffrage. We find the beneficial effects of it there in our primary contest here the other day, the elimination of a certain kind of politics that we can get along without very well.

At this time I want to congratulate you upon your worthy mission and bespeak for you the earnest co-operation of all friends of pure food. I believe the movement inaugurated by this organization to bring about frequent conferences of food control officials, food manufacturing interests, and food distributing interests will promote a better understanding and by these means advance the uniformity of efficient food laws.

Manufacturers and distributors of food products who are good business men are among the best friends of pure food. They realize that it is a very difficult task for them to compete with manufacturers who have no respect for pure food laws.

The only permanent foundation to build a structure upon is an honest and upright one. It is therefore a part of wisdom and good judgment for food manufacturers who have by years of honest endeavor persistently maintained a high degree of quality, and have thereby made for themselves a name and reputation that is their most valued asset to encourage meetings of this nature.

Some ill advised and destructive people inspired possibly by a desire for selfish notoriety, get into the habit of putting all food manufacturers and food distributors into a single and dishonest group. These people who, very often, pose as public benefactors, can at times find an audience who are willing to listen to their vituperation and while under their hypnotic spell may do harm, as it is far easier to destroy than to construct.

Gentlemen, I believe the American business man is honest and needs encouragement, as they are the men who have made this country what it is.

Gentlemen, I have the honor of being a member of the Illinois State Food Standard Commission. On this commission I represent the food manufacturing industries of the State of Illinois. I believe that Illinois is the largest food manufacturing State in the Union. I also believe that we are the only State in the Union having in connection with their food law a Food Standard Commission.

I will read you the Illinois Statute covering the law, creating the Illinois State Food Standard Commission in 1907.

Section 1:

"The Governor shall also appoint from time to time, as required a Food Standard Commission, for the purpose of determining and adopting standards of quality, purity of strength, for food products, for the State of Illinois, to consist of three members, one of whom shall be the State Food Commissioner or his representative, who shall serve without extra pay, one of whom shall be a representative of the Illinois Food Manufacturing Industries, and one of whom shall be an expert food chemist of known reputation; all to be citizens of the State of Illinois, who shall receive fifteen dollars (\$15.00) per day for a period not exceeding thirty (30) days in one year, and necessary expenses incurred during the time employed in their discharge of their duties: Provided, that said Food Standard Commission, in determining and adopting a standard of quality, purity or strength, of milk or cream, shall fix such standard as may be determined solely by examination and test of milk or cream and the can or receptacle in which it is placed.

"Section 39:

"In the enforcement of this act and the construction thereof all articles of food not defined in this act, when offered for sale or exposed for sale, or sold, shall conform to the definition and analytical requirements of the standard adopted and promulgated from time to time by the State Food Standards Commission: Provided, such standards for any article of food or drink, or for any substance used or intended to be used in food or drink shall be deemed prima facie evidence of the proper standard of quality, purity and strength of any such article or substance, but shall only be deemed such prima facie evidence in the trial of cases brought in the proper courts to enforce the provisions of this act: Provided, that nothing in this section shall be construed to prevent the sale of any wholesome food product which varies from such standards, if such article of food be labeled so as to clearly indicate such variation."

The purpose of the Food Standard Commission is to formulate and promulgate prima facie standards. In this manner it places food control officials in a position to go into court with a food standard and bring suit for its enforcement, which of course is subject to be reviewed by a court and jury and if held not to be a proper standard, the Commission can formulate and

promulgate a new standard. The Standard Commission has an advantage over the method of formulating and promulgating standards by food control officials. Also this way of proceeding has a great advantage over standards fixed by the legislature, because when the legislature fixes a standard it can be changed only by the legislature, and should the standards so fixed be found to be wrong in any respect, there is no remedy until the legislature meets again. The Illinois Food Standards Commission, consisting as it does of a representative of the food manufacturing interests and an expert food chemist and the State Food Commissioner, constitutes the board, which meets weekly for the purpose of investigating standards and hearing from manufacturers who are interested in the advancement of pure food legislation. The commission weighs subject matter very carefully and thoroughly and arrives at a conclusion if possible that is just to the manufacturers and at the same time protecting the interests of the consumers.

The Chair: We have now heard from practically all the interests that are interested in foods, with the exception of the man who really does the trick of turning over the food products that are consumed, and that is the retail grocer; and we are privileged in having here with us Mr. John A. Green, the secretary of the National Retail Grocers' Association, who is also the secretary of our conference and who will say just a few words before we will close and adjourn. (Applause.)

Mr. Green: Mr. Chairman, Ladies and Gentlemen: I looking for a train to go home. However, I want to say in a few words that I was very much pleased to hear Miss Wood say that the Women's Federation of Clubs was looking after the conservation of the manufacturing interests. That is the greatest move of all, I think, when you protect the manufacturer. Much has been done to practically demoralize or drive out or make it almost impossible for the manufacturing interest to get along and succeed with the laws heaped upon them by the people who knew nothing at all about conditions. Again: the tendency of the demands is toward weight. For ten years I haven't had a measure in my store. Everything is sold by weight. And the tendency of the times is toward selling by weight. And better for all concerned. I have been attending the Michigan State Convention of Retailers, three hundred men in convention, this week, and on Wednesday I heard a retailer say he had seen a peck of potatoes marked 12 cents, where he knew they couldn't be sold for that. They weighed twelve pounds. Another man was selling 15 pounds for a peck. And the consequence was the customer was being cheated. I have seen, too, "twelve pounds of spinach" in a basket which did not contain seven. Those are the things which we are finding, and I tell you this question we are considering today is one of the most important questions in the United States, uniformity of food legislation. There is no reason in the world why we can't have the same law in all the States. The idea that there is a line drawn between New Jersey or Ohio—we don't know anything about that line. There isn't anybody here who can tell what that line is. We are all one people and should have one law.

This organization is just opportune. It comes at the right moment, and all people are prepared for it. Don't let us get away from it. We have got to have more men here. There should be ten times the number of ladies here. I believe in the greatest publicity. And of course as a retailer, whom do we know anything about particularly but the consumer? I remember once I was running for office and every customer I had made her husband get out and vote for me. We believe in publicity, and by publicity we are going to bring about universal State legislation. When the pure food law was passed in 1906 we thought we were through with our troubles, because we had a national pure food law. But what do we find? A conglomeration of everything. In the State of Wisconsin today, wholesalers as well as retailers are forbidden to sell certain goods. And yet the mail order houses can send similar goods, because of interstate commerce, into the State of Wisconsin—which results in direct legislation against their own business men. It seems almost impossible. And yet those are the facts. Down in the southern part of the country there are from five to ten pounds difference in the weight of a bushel between neighboring States. Buy a barrel of potatoes and send it into the next state, and the fellow takes ten pounds out of it.

Then somebody tells you we can't have uniformity of legislation. My experience throughout the country has taught me there is a state of demoralization throughout the States because of lack of uniformity of legislation. We don't realize what it means, this uniformity. I tell you the women of this country have a wonderful influence, and the men have a

wonderful influence, and these two forces must be brought into connection so that we can force through the several States legislation to conform to the Federal law. And if there is anything wrong with the Federal law it should be amended, and the States conform to the amendments; and the sooner we get at it the better. I will just leave what I have said with you, because I am very earnest in this matter. I meet retailers from all over the country. The last meeting I attended in Iowa, there were 700 men there, and every one is interested in these things, and it only wants a starting point, something to center on, so that the thing can be set afire throughout the country and we can bring about this legislation. I wouldn't be surprised, if we set to it, that inside of a year from now or a little more than a year we can have the very laws that we are looking for.

Miss Wood: The gentleman spoke of the few ladies who were here. At your next meeting, if you will send out invitations or just enclose your program to the presidents of the different clubs, I am sure you will have a large attendance of women, because the women are more interested in this pure food business than you would imagine. (Applause.)

The Chair: Thank you very much for your suggestion. You must recognize, however, Miss Wood, that this is really the first meeting that this conference movement has developed. We have only been in a nascent state, and today from now on we start as an organized body, and from now on you can depend upon it that we will not neglect the ladies; and we especially will invite all the Association of Women's Clubs who we know are interested, because I think that to a great extent they have been misled. They have not understood exactly what the manufacturers wanted, and they did not understand that we are just as anxious to make our goods as pure as possible and we are just as interested in what interests them, because after all we are all consumers ourselves, and if we were a set of men who could live without food we might be disinterested, but we have not only our own personal interests, which are also dependent on food, but we have thousands, tens of thousands of men depending upon us who use food. So it would be idle for anyone to suppose that any manufacturer knowingly and willingly and intentionally placed anything in their goods which would be unhealthy or poisonous, as a good many of the press have made statements, and thus discouraged the use of food, instead of encouraging the thing which we all need and which we ought to encourage, instead of making us feel we are eating because we must, and not because we like it. I thank you.

I think we have pretty nearly covered our program. In the name of this conference I thank everyone for having cooperated with us. I feel convinced that the results of cooperation, as I would call it, of the different interests which affect our nation greatly, are highly appreciated by us, and I trust that at our next meeting we will have a very much larger attendance and very much more interest manifested, after the people in general will understand the good motives which we have proclaimed here and which we expect to carry out.

I thank you. (Applause.)

At 4:35 p. m., on motion duly seconded, the conference adjourned subject to the call of the Chair.

EGG SHIPMENTS FROM CHINA.

The high price of eggs, the apparent scarcity of supplies, and the provision in the new American tariff act placing eggs on the free list have resulted in large shipments of eggs from Shanghai to the United States during the month of December, 1913, and the first half of January, 1914, according to report of Consul General Gauss.

In 1913 eggs to the value of \$31,451 were shipped from Shanghai to the United States; of this total, shipments reaching \$29,000 were made during the month of December, when 5,800 cases (of 30 dozen each) were forwarded. In the first half of the month of January, 1914, 1,044 cases, valued at \$42,900, have gone forward, principally by the northern steamship routes to Vancouver and Seattle, for American Pacific coast ports.

The egg prices fluctuate, of course, with the demand, and the recent heavy shipments to the United States have somewhat increased prices, which, for the larger sizes of eggs shipped, range from 12 to 15 Shanghai taels per 1,000 in Shanghai (\$7.79 to \$9.74 U. S. currency at the Government exchange rate for this quarter). To these prices, of course, must be added the cost of packing, shipping freight, etc.

Canners Convene at Baltimore

NATIONAL ASSOCIATION HOLDS ITS SEVENTH ANNUAL CONVENTION

IN POINT of all that goes to make a successful convention the National Canners' Association which opened at Baltimore, Md., February 7, eclipsed all previous meetings. The attendance throughout the three days of the meeting was larger than that of any previous meeting and as for the type of men and women present they represented many branches of the food world. Some of the visitors, not directly interested in the canning of food products, made notable addresses and in other ways lent support to the work of the organization.

Cardinal Gibbons, clad in his scarlet robes, delivered the invocation, after which Governor Goldsborough of Maryland made an address of welcome, followed by another address of welcome by Mayor Preston. The convention then settled down to a consideration of the various problems that brought the members and their friends together.

President B. M. Fernald was in charge of the meeting. In his address he reviewed the work of the year and tried to anticipate the necessities of the future of the pure food laws and standards. He said:

It has been the policy of this association from its inception to support all national and state pure food laws, and whenever there has been any opposition, it has been because it was feared that those charged with the enforcement of the laws, did not fully comprehend their meaning.

The National Pure Food Law seems to cover the ground logically, and packers in general have little criticism to make, but some of the states have enacted laws that are so stringent and apparently unfair, that packers of canned foods in every section of the country are obliged to watch carefully the market to which they are shipping, in order to have them comply with the state laws where the goods are destined to be sold.

It is presumed that all goods are packed, so far as material and processing is concerned, to comply with the National Pure Food Laws, but in branding of the goods, some states declare very definitely that certain changes should be made in stenciling, etc., which would be of but little or no benefit to the packer or the consumer, and it is hoped that uniform legislation along the lines of the National Pure Food Law may be established in every state.

National legislation for the establishment of standards of all canned products would receive a hearty welcome. The trade journals, magazines, and the press at large have given the industry much encouragement the past year, and there has been a great change from the sensational items published a few years since, bitterly denouncing the use of canned foods, to the recommendations, and articles encouraging and advising their use, which have been in general circulation the past season.

The question of sanitation has been agitated, and great improvements made at many canneries in the United States; and there is yet room for improvement. Nothing will add more to the welfare of the industry, the friendly publicity given it, and the great benefits derived from it, than to have the canneries in a state of immaculate cleanliness; and it should be the duty of every member of the association to bring about at all the canneries in his locality, the best possible sanitary conditions.

I have already suggested that standards be established for the quality of every food that goes into a can; but let me impress upon you ptomaine poisoning which have been reported, and we have yet to learn of a single death that could be directly attributed to the use of canned foods; and while in past seasons a large amount of money has been expended in investigations of this nature it would seem that the facts are so well established at this time that little or no attention need be paid to rumors or headlines of this character. It is a fact beyond question that longevity has increased, and in about the same proportion that the canned foods industry has developed; who can say that canned food may not be, in a measure, responsible for this era of good health and long life?

Secretary Frank E. Gorrell in his report dwelt at some length on the important work done by the scientific research department of the organization.

"It seems inconceivable, to other food manufacturing industries," he said, "that the canners should own perhaps the most intelligently equipped laboratory in this country, which is specialized for their particular purposes.

"These laboratories, dedicated to research, mean a great future, not only for the industry, for the consumers of the country as well. Without reflecting on present methods, it is apparent that problems which are now confronting us can be more successfully worked out on accurate scientific lines.

"The laboratories are officered by two of the best food scientists of the country, and their reputation is known all over the food world. It is a high compliment when men of this caliber can be induced to specialize on one particular method of preparing food. This evidences their faith in the future and the possibilities for advancement that are now within grasp."

Continuing the secretary said:

"The National Association, at its recent convention, endorsed the general weight bill which had been before Congress for the past three years. Enactment of this measure into law was finally made possible on March 3, 1913. While there was no general opposition to the law, the many other bills that were being pressed before the short session of Congress made its enactment exceedingly doubtful, except for the strong effort made during the latter part of last February by the friends of the bill, in which the National Canners' Association took conspicuous part. Representatives of the association were most active until the signature of the President was assured.

"The association is on record opposing home canning compounds, not for commercial reasons, but because the analyses of some of these compounds have shown that they contained preservatives which are declared by scientific men to be of a most harmful nature. The use of the same has prejudiced the consuming public, which does not distinguish between products preserved in this manner and those preserved by heat sterilization only.

"Through the offices of the National Canners' Association the representative milk manufacturers of the country have been able to agree upon a better uniform minimum standard for their product. This action on their part has been formulated into a request to the Board of Food and Drug Inspection to recognize this minimum standard as being a proper and enforceable one. The example of the milk manufacturers will be an excellent one for other canners to follow. The industry would be put on a very much better and more satisfactory basis if a system of standards could be agreed upon and enforced and a method of labeling adopted which would enable the consumer to always make intelligent purchases."

Many important addresses followed, of which a number are herewith produced:

NECESSITY OF THE RETAILER'S CONFIDENCE.

By JOHN A. GREEN.

(Secretary National Retail Grocers' Association.)

It is with pleasure that I accept this privilege to present to you the greetings of the National Association of Retail Grocers of the United States.

"The Retailer's Confidence," I believe, is the topic assigned to me.

There is no class of men in the trade whose confidence is as necessary to you as the retail grocers. It is he who comes in contact with the consumer. One word detrimental to your goods will create a destructive influence, while a good word or recommendation will have much to do with making a perpetual demand for your commodity.

There is a steady increasing demand for canned goods, in spite of the ever increasing supply of fresh and green vegetables and fruit in the unseasonable parts of the year.

It is necessary therefore that the greatest care be exercised in the packing; giving to the consumer quality goods at a price which will encourage the desire for greater use.

You can readily see the anxiety of the retailer when he, and he alone, is held responsible both for the quality and the price at which the consumer gets your goods.

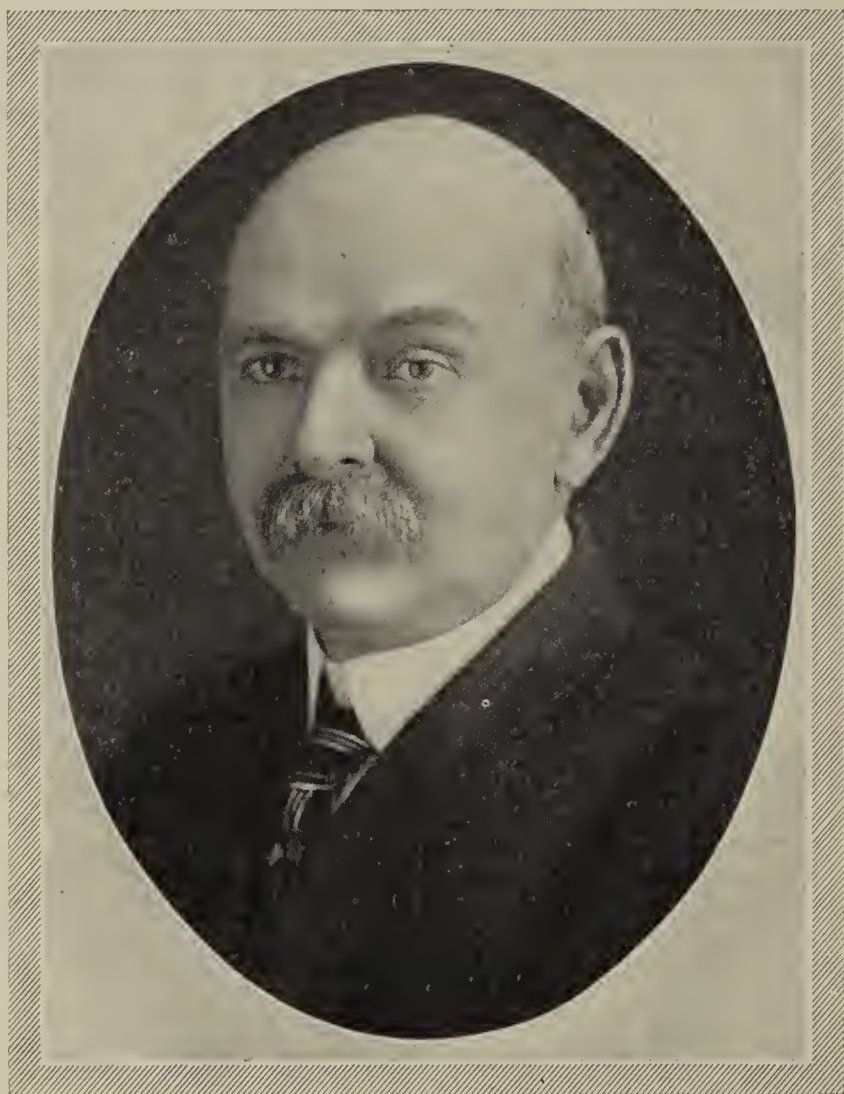
The question naturally arises with you, "How can I secure and retain the confidence of the retailer?"

First, he must be assured a fair remuneration for the labor and capital employed in the distribution over and above his operating expense.

Second, a class of goods that will cause the least complaint from the customer, and third, the consumer should be satisfied that he is getting value received in every purchase made.

The consumer knows very little about the man who puts the goods into the can, but believe me, she knows all about the man, both public and private, who sells her a can that does not quite suit her taste, or in some way has become unfit for the table.

By a single instance of this kind, the same conclusion is reached as in other things. The church is bad because some one member has done wrong; the same applies to civil institutions; and that one "can" has done more to discourage both retailer and consumer than the millions of good cans do to encourage their use.



JOHN A. GREEN.
Secretary of the National Retail Grocers' Association.

Once you get the confidence of the retailer in your goods you have an asset that cannot be counted in dollars and cents. I am telling you this because of my twenty-five years of actual experience. Once a retailer becomes satisfied that he has the thing that will please his trade, he becomes attached to these goods as though they were a part of his existence.

Quality of course is essential, but under the cry about the "High Cost of Living" it is necessary that quality reach the consumer at the lowest cost of production and distribution.

The retailer is a necessary and inevitable factor of distribution. The middleman between the manufacturer or producer on the one hand and the ultimate consumer on the other. He exists not for mere sentiment, but because the complexity of modern business relations has made him necessary and because he is performing services which the business world needs and is willing to pay for.

It is only a year ago when Canned Foods Week was launched. You no doubt remember the loyal and enthusiastic support that was promised you at that time. How well that promise was carried out you are well able to answer. Millions of cans of food were distributed during the week and the demand created at that particular time lasted well into the summer season.

I am not selfish about taking all the credit for the retailer,

for the success of the plan I want to give some credit to those who furnished the finance and especially to the one who managed the publicity end of it, Mr. John Lee. He flooded our office with literature and kept us busy carrying out his instructions.

In the name of the National Association of Retail Grocers I want to again pledge our loyal support to you in any movement that shall have for its object the distribution and consumption of pure and healthful canned foods.

Many of you do not see the situation in its true light. You spend thousands in advertising to the consumer when you could appeal directly to your salesman, the retailer, through his trade paper. The day was when he did business in a different way than at present, but the successful retailer of today, the one you want to reach is a student; he reads, he studies his business, he searches after all the help he can find, and I know of no way better to get his confidence than a heart to heart talk with him through the medium of a first class trade paper.

Our coming together in this co-operative spirit speaks for the future welfare of the trade. I have mingled with all branches of the trade during the last ten years and I am sure that you, the manufacturer or packer, can readily see that the greater number of retailers who handle your goods the more accessible will be your wares to the public.

Much is being said and printed about honest advertising. We can well afford to interest ourselves in this movement, because it means good business, more business and sounder business; it is a movement which the business men should control by taking it into their own hands and by looking the situation squarely in the face and finding out where there are misrepresentations, if any, where there are advertisements presenting untrue statements, not justified by the facts. Business men should give thought to this movement, because truth makes good business; it will make the public feel at home and satisfied and ready to spend their money for the right things; and next, because if the business men do not control the movement for treating the public truthfully, the movement may proceed to unreasonable lengths. There have been laws passed already by ignorant legislators that bear harshly upon business, and unless business men superintend the situation and act with utmost wisdom and honestly instruct the legislatures in the directions in which they should work it is very probable that laws may be passed that will bear very harshly upon perfectly sane and sound business enterprises.

It is a most surprising and interesting thing and the most hopeful sign of all the signs that I know of in the business world today, the ethics is taking its proper place in the thought, and more than that, in the lives of American business men.

Business is growing better because the men that are in it are growing better, because ethical considerations are dominating their lives and their relations.

It is men like that that are changing our ideals about business. The fellow with the clean, moral fiber, the strain of decency and honesty and manhood in them, that are taking up business seriously and honestly, realizing its moral implications—these are the men that are changing or helping to change business.

What brings you here? Faith in a common purpose, loyalty to a common idea, hope in a common cause, fidelity to a common aim. You expect still further to advance the purposes and to realize in still greater measure the ideals that lie at the foundation of your associated effort. You receive inspiration, viewpoint, vision, clear information, knowledge and outlook that will make you more efficient and make you stronger and better men.

And who shall measure its influence for good, its power for business efficiency, for the development of integrity, for the elevation of business standards and ideals and for the inculcation of that business righteousness which exalteth a nation.

A character for integrity in business means and ambitious energy for all that is helpful to one's self and one's fellow-man.

Let us use every means at our command to bring our two forces closer together to the end, that you as packers and we as distributors shall work in harmony and closer co-operation, thereby bringing about a greater demand for your products through the efforts of the retailers whose confidence you have sought and gained.

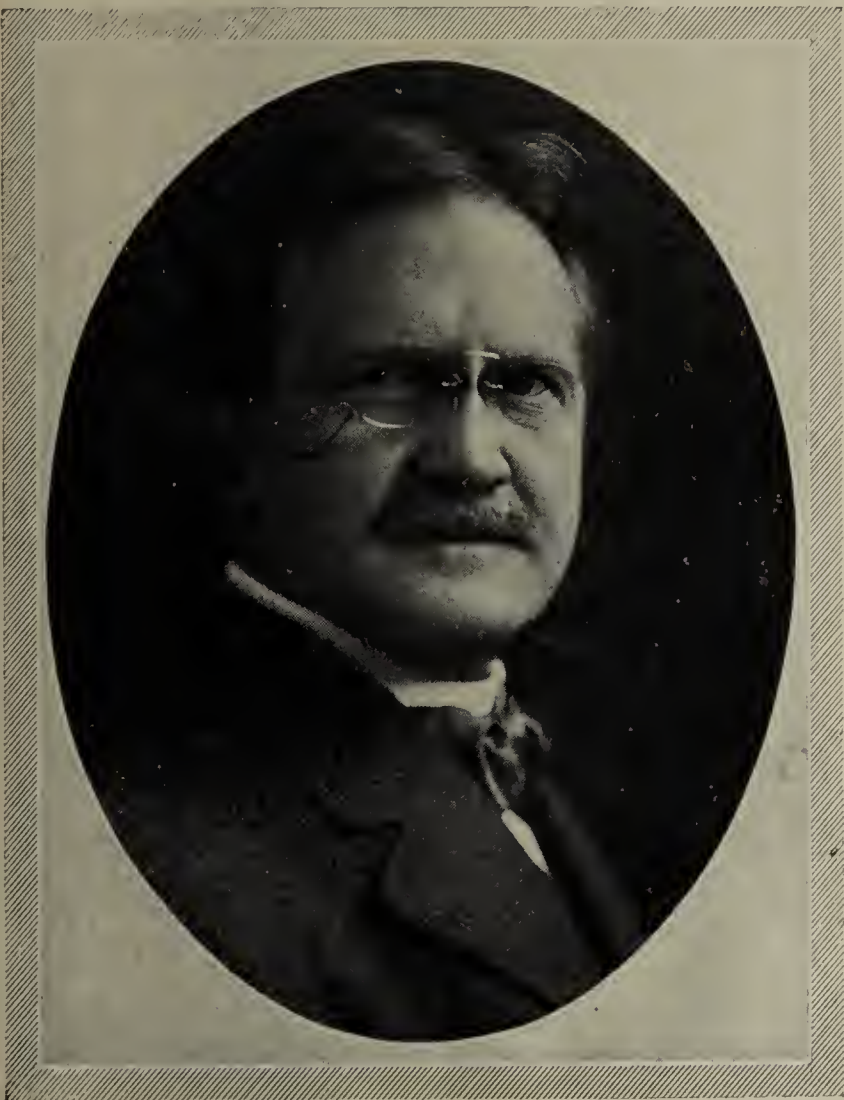
FEDERAL GOVERNMENT AND FOOD PRODUCTS.

BY OSCAR B. McGLASSON.

(President National Wholesale Grocers' Association.)

The federal government owes no greater duty to its citizens than to see that the food offered for human consumption is the best that nature can produce and the purest that skill can make. Henry Ward Beecher said, "There is no higher art than that which tends towards the improvement of human food."

You, the canner, who husband nature's products in the time of plenty—a true conservation—by putting the surplus fruits, vegetables, fish and meats under the most economical, sanitary and improved conditions into jars, bottles and cans, and we, the wholesale grocers, who make a business of assembling these canned foods and thousands of other food articles from all countries and islands of the world, so that they can be delivered in convenient quantities to the retail grocer, who can now supply the consumer, are engaged in a business of



OSCAR B. McGLASSON.

President of the National Wholesale Grocers' Association.

which we should all be proud.

The manufacturers, canners and distributors of foods for the human family know that the federal government owes to the people of this land a sacred duty. No part of the government is more important and more far reaching than that which protects human life, by seeing that only the purest and most wholesome foods are permitted in interstate transactions.

When your association established a bureau of scientific research, at an expense of several thousands of dollars, and employed several of the best known and highest salaried chemists in this country to experiment on the best, safest and most economical way of processing canned foods, a work exactly along the lines of the federal government, as conducted by the Department of Agriculture and the Bureau of Chemistry, you showed a willingness, a desire to work with and to aid the government as few business men have ever done. I hope the people appreciate your good intentions. If not now, they will, as no good effort goes long without its due reward.

The members of the National Wholesale Grocers' Association, also realizing this great duty the government owes to the people, during its first session, just before the national pure food law was passed, wired President Roosevelt and

Speaker of the House Cannon urging the enactment of the present national food law. It was then, as it is now, our earnest desire to aid the government to enforce laws in a business-like manner. We sent to Washington expert food manufacturers with years of experience who took with them results obtained in research work, laboratory work, and gave all this information to the food officials. It was a new field the authorities at Washington were going into and many serious blunders might be made, resulting in a great loss to the business interests of this country, with an unnecessary expense added to the necessities of life.

That is the spirit under which the wholesale grocers approached the government. I believe the government officials having this matter in charge will admit that they have received honest, earnest co-operation on the part of the wholesale grocers and canners that has aided materially the enforcing of the food laws in a sane, business-like manner.

If it were not for associations like yours and the wholesale grocers, it would be impossible to furnish this aid to the government, for no one, or half a dozen wholesale grocers or canners, could or would do this work of assisting the government.

The members of our association distribute at least 85 per cent of the groceries sold in the United States. It is an organization of an immense and very important business, on broad and liberal lines, of competitive co-operation, aiming to do away with unbusiness-like methods detrimental to trade and general business morality.

There should be an organized effort to establish in the minds of the people that the general welfare of the public is conserved by maintaining uniform conditions and adopting legal methods along which business should be conducted. Public opinion will not only control our government, but will have much to do in regulating all "big business" of this country.

We must look to the press as the greatest factor to place matters correctly, and in a just and proper manner, before the people. This cannot be done, unless the press is adequately informed, and there should be a genuine effort on the part of the manufacturers, canners and wholesale grocers to furnish the press with general and technical knowledge concerning business affairs. This plan of education will enable the press to give the plain facts and truths, so that public sentiment can be shaped into the right mould.

The press, in most instances, has fed the public for years on sensational news of business combines and trusts. Any collective attempt of men engaged in the same line of trade to better general conditions, to save waste, to get greater efficiency and cut down needless expense is at once heralded all over the country as another combine, another trust, and this without the least effort on the part of the press to ascertain the facts and motives controlling such organization.

When the public is informed of the fact, that your association—the canners of this country—along with the manufacturers, the wholesale grocers and the retail grocers, have appointed committees, consisting of men of the widest experience and knowledge in their respective lines, to meet and consider if there is no unnecessary waste in labor, material and money under the present method of manufacturing, canning, assembling, handling and delivery of food products to the consumer, will our efforts be appreciated.

By comparing conditions and taking counsel, one with the other, these committees will, no doubt, bring attention to each factor, certain methods and means of doing away with certain unnecessary expense, and thereby permit these foods to be placed in the hands of the consumer at a reduced cost.

The results sought are so glaringly in the interests of the consumer that the press should highly commend the work and urge other associations of business interests to take up similar work in other lines, and thereby cut down materially and substantially the high cost of living.

These committees take the place and do the work of commissions appointed by certain governments to investigate trade conditions, and when men engaged in such an important business as that of furnishing food for mankind, evidence such an earnest desire to work with the government and along lines so apparent for the general good, their efforts should be commended by the government, the press and the general public.

We are told that President Wilson's attitude towards "big business" is, "You be good and I will be good." This is a common-sense policy, and no trade accepts it with more assurance and hope that it will bring better business conditions than the wholesale grocers, for if ever there was a business conducted under hard and unfavorable conditions

it is the wholesale grocery business of the United States. Although all the wholesale grocers of the country are engaged in the very keenest competition among themselves, they are, as a class, more or less frequently at the very mercy of what seem to be trusts in other branches of the food trade.

Wholesale grocers are confronted with and compelled to do business with many institutions that are commonly known and classed as "trusts." Nearly every principal commodity that we handle, whether of a proprietary nature or where dealings are made direct with producers, are credited with being trust governed in their methods of pricing and marketing. We are, many times, unjustly blamed and criticised for these conditions, whereas we have neither part nor parcel in connection therewith, except to buy at the price and sell at what can hardly be considered a legitimate profit. There is scarcely a commodity which the wholesale grocer distributes but what is affected in some way or other by some combination controlling the price or conditions under which the article is sold. This applies to boxes, containers, labels and cartons, as well as contents.

The wholesale grocers, as well as other thoughtful, well-meaning business men, hail with joy and supreme satisfaction this common-sense attitude on the part of the government towards the business interests of this country, and to have the assurance that our able president intends that the so-called trusts "be good" or stand investigation and prosecution by the federal government.

The wholesale grocery business is not a favored one. It is fraught with constant contest, and we agree with President Wilson when he says, "Men are no longer resisting the conclusion which the nation has arrived at as to the necessity of readjustment of its business. Business men of all sorts are showing their willingness to come into this arrangement which I venture to characterize as a constitution of peace, so that by common counsel and by the accumulating force of co-operation we are going to seek, more and more, to serve the country."

Attorney General McReynolds recently said, "We will always welcome opportunity to aid in bringing about adjustments where necessary for the re-establishing of lawful conditions without litigation."

This is good news, and we trust this administrative policy will be applied to the administration of the food laws and other federal statutes, as it is exactly along the lines our association has worked for over seven years. We have aided, and will aid, the state and national government to enforce food laws. We maintain a pure food and legislative committee, and it is the special business of this committee to educate all the wholesale grocers of the United States how to comply with the food laws. We send bulletins issued by the food authorities with explanation how to observe the law. As business men, we realize that the best results are secured by working with and aiding the government.

We want uniform food laws. We believe in one government, in which is centered the right to regulate the manufacturing, canning and distributing of all foods for the entire United States.

Our associations have much in common. By working in harmony much benefit can be secured to the consumer of the canned goods. There is a persistent demand that food articles be put up in the most artistic manner and under the most approved sanitary conditions. There is no food offered for the table that is more convenient, is freer from contamination, handled with more care and put up under such strict conditions and requirements as canned fruits and vegetables.

Canned goods as now processed and packed are the cheapest, healthiest and most wholesome and subject to less waste of all foods obtainable. The work your association is doing through the Bureau of Publicity cannot be too highly commended. Such a far reaching plan of education benefits not only the consumer but refutes the slanderous libels so often appearing in the press of a business conducted on such a high plane as is now the canned goods packing industry of this country. The wholesale grocers should contribute their share of money and aid you in every way possible to make the work of your publicity bureau more effective.

I am glad that our association had a part with yours last year in featuring Canned Foods Week. The seed sown will bring harvest for many years to come. I am in favor of keeping up this work. It is money well invested, and I trust our joint committees will arrange a just basis along which this great plan of educating the consumer may be conducted, so that the consumer may be informed of the wholesomeness, the economy, the purity and the simple convenience of canned foods.

The canners are not equipped either in office or sales force to sell their goods in small quantities to the retail grocer. For that reason it is recognized that the wholesale grocer is the best, the most economical, medium for the canner to reach the retailer and thereby the consumer.

This is a truism, made the more certain by some disastrous experiments on the part of some of the canners. Experience, technical knowledge and skill are necessary to succeed, and I fear that the average canner will fail to make a success of the wholesale grocery business, just about as certain as the average wholesale grocer would make a failure of the canning business.

I want to assure you that the wholesale grocers of the United States are vitally interested in all matters, in all problems, affecting the National Canners' Association, and you can count on the sincere co-operation of our association in all matters pertaining to the packing of good, wholesome canned foods.

Mr. John T. Lee, of Chicago, followed with an interesting address on "The Links in the Chain of Distribution."

The Hon. J. Harry Covington, who represents a Maryland district in Congress, addressed the convention as follows:

ADDRESS OF HON. J. HARRY COVINGTON.

Upon the invitation of your very energetic officers it gives me great pleasure to be present at this convention to talk to you upon some topics intimately connected with the permanent success of the canned food trade of the United States.

Your association is doing a great work. I live in and represent in the Congress of the United States a district which produces so large a portion of the canned vegetable foods of the country that I watch very closely the activities of the association insofar as its connection with proposed national legislation is concerned; and it is but a deserved tribute to say that no trade body in this country is so uniformly in line with advanced public policy for the general welfare as the National Canners' Association.

At the present moment public interest is centered on the subject of government and business. Even political feeling is somewhat aroused, and back of all the controversy is the welfare of the whole American people. Theirs are the real interests at stake, because progress and prosperity that are permanent extend to all classes, and the protection and betterment of the individual by government legislative agency, if successful, must be practically universal in its effect.

About twenty years ago Chief Justice White of the Supreme Court, in speaking for the court in the great case of *Munn vs. Illinois*, said: "Property becomes clothed with a public interest when used in a manner to make it of public consequence and affect the community at large."

Quite recently Judge Vinje of Wisconsin condensed the conclusions of the Supreme Court, running through numerous decisions from that opinion of Mr. Justice White to the present time, in the following language: "We find that private property or business becomes affected with a public interest when used or carried on in a manner to make it of public consequence and affect the community at large, and when thus affected, such property or business becomes subject to legislative control in all respects necessary to protect the public."

With the advance of civilization the variety and extent of the use of canned food products has increased amazingly. The canned food is today, I am sure, almost as staple an article as bread or meat. The business of producing canned foods is thus affected with a public interest, and is therefore very properly subject to legitimate and reasonable legislative control. I have therefore determined to talk to you briefly today upon the topic "The Public Interest in the Canners' Business."

There is now little antagonism between business and government. That period has practically passed away, and insofar as the canned food business is concerned the object and spirit of the canners' conduct is simply to meet the consumer half way in the process of determining those safeguards which are necessary to promote and secure canned foods in this country which meet the test of the highest standards of sanitation and healthful food value.

There is not a person here today who does not know that the extent and stability of the canned goods trade has increased remarkably in the last ten years. And while the naturally cautious and conservative producer of the canned food products has in the past looked dubiously at proposals to regulate in any manner the operation of his business, I fancy there are few among you who will not say that the transcendent interest of the public, the ultimate consumer, in-

your business largely increased its extent and stability through the action of the great agency which must act for the public—the Congress of the United States—when, against the undeveloped judgment of the canner himself, the existing pure food law was made the law of the land.

Ten years ago the leading canned goods trade journal of the country carried in its advertising pages the praise of "sugarole," admittedly a deleterious preparation of saccharine matter which was boastfully said to be many hundred times sweeter than sugar. You could find lauded the virtue of so-called "preservaline," openly stated to be a chemical product to assist in the preservation of canned foods. There were alluring advertisements of "food colors," which were presented to the trade as superior to crude chemicals, and which it was probably thought might attract the discriminating taste of enlightened Americans who would naturally desire that any poisonous coloring in their foods would at least not be crude.



HON. J. HARRY COVINGTON.

Today you must almost be shocked to realize that in times past the questionable standing of your trade, and the doubtful success of your yearly labor, were due to that sort of ultra-conservatism which did not recognize frankly the public interest in your business and therefore resisted reasonable and constitutional legislative control, while "sugarole," "preservaline," "food color," and a large list of deleterious and poisonous products were being used in your canned foods to your own disadvantage. You now appreciate that the public interest in your business, crystallized into sensible and effective national legislation, has ended those evils of a decade ago and proven to you that there can be a real legislative communion of righteousness between the canners' business and the government.

I am happy to know that the great body of American canners have given hearty support to all rational legislation which has sought to standardize, purify and increase the food value of the products which they are engaged in manufacturing. This very fact has placed the canners of America in a most favorable position toward the Congress of the United States. It has resulted in matters affecting their interests being considered with the knowledge that the canners ask

nothing unreasonable, ask no discrimination in their favor, and ask no exclusion from that remedial legislation which shall tend to safeguard the great interest of the consumers of canned foods.

And in this place let me say that the importance of scientific research to the progress of the canning industry cannot be overestimated. It is, after all, to the chemist that the canned food producer owes in large measure his success. The development of processes for the sure and healthful preservation of food has been the basis of the industry, and it is a fine tribute to the far-seeing wisdom of the National Canners' Association and a high minded appreciation of the rights of the public in the canners' business that your association has voluntarily established in the city of Washington a bureau of scientific research which is doing work equal to that of the Bureau of Chemistry of the Department of Agriculture, along the line of investigating the safest and most sanitary processes for the preservation of canned foods at the smallest cost to the consuming public. There can be no better illustration of the notion that we have passed the period of contest between business and government, and entered upon an era of earnest co-operation than the action of this association in establishing a private bureau which takes advantage of the research of the government and supplements it with its own equally thorough research, to the common end that the interest of the canner and the interest of the public may be alike served for the benefit of the country.

It is my pleasure to continue to serve as a member of the Committee on Interstate and Foreign Commerce of the House of Representatives. The part of that service which appeals to me most strongly is as chairman of the sub-committee having entire charge of legislation affecting the federal pure food law. In this connection let me say to the members of this association that they may do a valuable work in stimulating an interest in legislation that will prevent the shipment in interstate commerce of canned food products prepared in prisons and other penal institutions, unless the label plainly shows the place of preparation. It is a well-known fact that it is practically impossible to enforce the same regulations regarding sanitation and adulteration in prisons controlled and operated by the states that may be enforced by the Department of Agriculture in the private factories of the canners of the United States. For that reason it is quite possible, if the preparation of food products in prisons should become even fairly extensive, to create a strong prejudice in the minds of the American people against canned food products. Confidence is at the base of the canners' business. The public has become so justly sensitive regarding pure food that the prejudice against canned foods because of the fear that it cannot be known whether or not the foods have been prepared within prison walls may deter many people from the consumption of canned foods altogether.

Another matter somewhat vital to the canning industry, but which has not as yet attained wide publicity, is the continued sale in certain localities of deleterious canning compounds to be used for so-called home canning. In certain sections of the United States the preparation of foods in the home with these compounds is a real menace to the trade. When the press gets a story of sickness from canned food, it is not usual to obtain the particulars regarding the preparation of the food which caused the trouble. The result is that there is heralded abroad in this country the fact that people have been made ill as the result of eating canned food. It is highly desirable that the pure food law shall be so amended as to prevent the sale of these canning compounds. In a letter recently written to me by Dr. Harvey W. Wiley, he states in strongest terms the necessity for their suppression, and I am happy to state that your own chief chemist, Dr. Bigelow, agrees entirely with him in that matter.

There is also a proposition now actually pending in the House of Representatives which I consider of vital interest to the canned food trade of the United States. A bill recently introduced, ostensibly to protect the public health and to prevent frauds in the interstate sale of food, provides that it shall be unlawful to ship in interstate commerce or to any foreign country any article of canned food, unless a statement shall be plainly branded upon the label thereof, showing the year in which the same was canned. With the volume of canned food production in each year varying greatly, and with the annual consumption of canned foods varying to a considerable extent, it would be a practical impossibility to produce in each year the quantity to be consumed the next year. The placing upon a can of food of the date when it is prepared will, to my mind, practically destroy the stability of the

canned goods market. Every man who is informed about the canning industry knows that canned foods prepared under the law are wholesome articles of diet for years after they are prepared, and that spoiled goods are easily discovered. On the other hand, when the housewife enters the retail store to purchase canned food and finds upon the grocer's shelf products packed in, for example, 1914, and other products packed in 1913, she will demand the product of 1914. The result will be that the sale of the 1913 article can only be accomplished by offering it at a reduced price. It is a foregone conclusion that when a certain proportion of the canned food products in this country have to be marketed by the retailer at a reduced price, he is going to demand a sale to him either with a rebate for goods carried over, or in some other manner protect the price to him at the expense of the canner. The uncertainty of this whole situation, the inability of the packer, or the broker, or the jobber, or the retailer to calculate on the extent of goods to be carried over will so unsettle the market that that stability of prices which encourage manufacturers to produce a high standard of goods with the certainty of staple and fair markets will have been made impossible.

I hope it may be possible to write into the pure food law during the present Congress proper prohibitory legislation against prison produced foods and coming compound substances. A service to the public and the canner will also be rendered by the defeat of the label dating scheme. With a full recognition of the public interest in the canners' business, I purpose to use every fair means toward the attainment of those ends.

The public has such a vital concern in the real value of the canned foods purchased that legislation to establish standard labels that tell the whole truth of the contents of cans ought also to be passed by Congress. Every canner knows there are several grades of all kinds of canned foods. The label should so disclose. The producer of fine goods would then get the benefit of his care and skill in manufacture while the consumer would be justly informed about the cans which are short in quantity and poor in quality.

There is one other legislative subject which is bound to be faced in the near future. I realize that I tread upon delicate ground when I discuss it here, but it is a subject to which I have given much thought and about which I have arrived at a definite conclusion. It is the proposed requirement for the so-called manufacturer's label. In former years when pure food legislation has been pending either in the committee or before the House of Representatives there have been forceful arguments advanced against as well as for the requirement for the manufacturer's name on the label of canned foods. But recurring for the moment to the topic of his address, "The Public Interest in the Canners' Business," and remembering also that my conception of the canners' interest in his own business is to have his affairs so regulated that it squares with the best interest of the public, I think it cannot be longer doubted that the requirement that a manufacturer of a food product shall place his own name upon the label on his product is fundamentally sound. I know there have grown up in the great canned goods trade of America customs whereby grocery houses and jobbing houses and canned goods brokers of the highest repute have established special brands, and, by securing the selected canned goods and placing their own brand labels thereon, have developed a market which has become peculiarly their own. But the certainty which the real manufacturer of a given canned food product may be located by the officials of the Department of Agriculture will better conduce to the highest standard of manufacture than any other regulation. Men in all branches of business, who have given great thought to the subject, are becoming convinced that there is no danger from publicity. Only two days ago there appeared before the Committee on Interstate and Foreign Commerce of the House of Representatives the executive head of one of the great iron and steel interests of the United States, who testified frankly his belief in the proposition now advanced in the proposal for the creation of an "Interstate Trades Commission," that it is wise to require each corporation to disclose to the fullest extent the operations of its business. If that be true in the steel and iron trade, why not true in the canned goods trade. Confidence is at the foundation of the markets which you seek. When it is realized that the consumer in the wilds of Arizona or New Mexico may know the name of the manufacturer in Maryland or Maine of the canned food which he buys, there is a sense of security to him which nothing else can give. Moreover, taking the issue as between the canner and the wholesale grocer, or the jobber, who up to this time has been the owner of the private label he places upon goods which

he does not produce, I am convinced that in the long run the stability of the canning trade as a great public business for the benefit of the canner and the public alike will be best secured when the wholesale grocer or the jobber may use his own label if he choose, but at the same time must disclose thereon with frankness the fact that it was manufactured by a given concern at a given place.

The only legitimate benefit which the wholesale grocer or jobber has the right to claim for the goods which he markets but does not produce is the benefit of a reputation for careful selection implied in the quality of his brand. This reputation will be just as easily acquired and just as readily held when he lets the public know the name of each canner who puts up his goods. He says, in effect, to his customers, "I not only tell you who the manufacturer is, so that you may investigate him if you please, but I place my personal brand on his product and give that product my own assurance of its special value."

From the final standpoint of the canner himself, the argument for the manufacturer's label seems to me irresistible. He is the producer. It is his skill; it is his energy; it is his business honesty that creates the brand, and it is not fair to him, any more than it is fair to the public, that his industry and his honesty shall practically go for naught. Under present conditions the public can never know the extent to which he is trying by the best methods and by untiring energy to give to the public a canned food product that measures up to the highest standard. He is entitled to the benefit which comes from the publicity produced by having his product labeled with his name, and, although at this time no legislation is pending in the Congress of the United States to require it, I want to say to this association that in the progress of wise and beneficent legislation it is inevitable that the manufacturer's label requirement shall be written into the pure food law. When it shall have been done, I do not hesitate to say, as a sincere advocate of the whole trade, that neither the broker, nor the wholesale grocer, nor the jobber, nor the canner will receive anything except added benefit from its operation.

Gentlemen, after all, the public interest in the canners' business is merely a proper interest in a great industry of the country which is intimately connected with the health and happiness of the whole people.

Professor Irving Fisher, of Yale University, has recently written, "The conservation of human life will, I believe, constitute the greatest movement of the twentieth century. Not only do human beings constitute by far the greatest part of our natural resources, but the waste of human life and strength is by far the greatest of all wastes."

Your association is composed of men so big and broad-minded that I am sure you will encourage and applaud all legislation which through an awakened public conscience seeks to extend so fine a legislative program of conservation.

Finally, let me say, I am an optimist regarding the future of the United States. I see no real sign of political or business decadence in its horoscope. Its people are basically sound in civic virtue, and the standards of public morality are being rapidly elevated. The American business man—fairly illustrated by the membership of your own magnificent association—representing the best type of American intelligence and American influence, will at the crucial test be true to those ideals of the equal rights of man which caused the foundation of this government, and with vigorous mind, generous heart, and noble motive will do his part toward the completion in the business world of what President Wilson so eloquently describes as "our constitution of peace."

Marion Harland made an interesting address in which she touched upon various food questions of the day in a pleasing manner.

Mrs. Winnifred Harper Cooley spoke on "The Housewife's Debt to the Canned Food Industry." Mrs. Cooley talked for good, wholesome food at a fair price.

ADDRESS OF DR. CARL L. ALSBERG.

At Thursday's session Dr. Carl L. Alsberg addressed the meeting as follows:

Mr. President, Ladies and Gentlemen: I wish I deserved the kind things, Mr. President, you have been good enough to say about me, but I feel that I am more at home in this association than in any other that I am asked to speak before, because my first meeting that I attended in my new position was the Louisville convention of this association, and while I was invited at that time to address this association I managed to dodge the invitation because I at that time lacked confidence in myself, in my work, to address you.

I feel that this association is remarkable above all others in the United States because this association has taken the first step in what must be ultimately a pretty general practice in this country, as it is in some of the European countries.

I refer to the establishment of a research laboratory to solve the problems with which your members are confronted. The establishment of that research laboratory is much the same sort of thing that the establishment of the Department of Agriculture was in its day. It is an organization for the purpose of helping everyone indiscriminately, whether he has a monstrous plant and millions of dollars invested, or a small local plant doing a local business.

And while the establishment of that laboratory hurt the Bureau of Chemistry in one respect, by withdrawing from it some of our strongest men, we feel nevertheless that the establishment of that laboratory has been a benefit even though it has weakened appreciably the organization of the Bureau of Chemistry by the withdrawal of the staff from the bureau.

We have mixed feelings whenever any of our men are taken from our service into the service of the industries. We are sorry to lose them. We find it often impossible to fill their places. But we realize that when they leave us they will go on doing just about the same kind of good work in their new places that they have done in the department. And so, while we hate to lose our men, we feel that the department has, as not the least of its functions, the role of being a training school from which chemists and agriculturists are recruited to go out into the industries and there to continue their work and false the tone of the work and the quality of the work, perhaps, more efficiently than if they stayed within the department.

Now this brings into prominence one side of the work of the Department of Agriculture which is not always clearly understood. The Food and Drugs Act—I am always expected to talk about the Food and Drugs Act—is usually discussed from the point of view of the consumer. The consumer is told always how good it is for him that the Food and Drugs Act was passed.

Nothing is said about the producer. It is tacitly assumed that he is some sort of a villain who gets his desserts from the passage of the Food and Drugs Act. It is not realized that the Food and Drugs Act is of greater advantage to the consumer than to the producer, and that is because people do not understand what is one of the main functions of the Food and Drugs Act.

The Food and Drugs Act has two sides. It was designed to secure to the consumer wholesome food. But it was designed—possibly unconsciously by Congress, but the effect is there nevertheless—to be an act for the suppression of unfair competition, and in its workings the Food and Drugs Act does more to suppress unfair competition among the producers than it does in any other direction.

When we prevent the canner—the few canners who indulge in the practice of slack filling—when we prevent them from indulging in this practice, we are preventing unfair competition, which injures all the men who do not practice slack filling. When we insist that a can of tomatoes shall contain nothing but tomatoes—shall not be half tomatoes and half water, we are helping all the men who put out an honest can, the great majority who put out an honest can against the few who compete unfairly with debased goods.

When we prevent the American producer of a product from putting that product out under a label which is an imitation of the label of an imported product, we are protecting, not merely the consumer; we are protecting not merely the importer of the product that is imitated; but we are protecting, in spite of himself, the American producer. He has to put his product out under a domestic label, and, in spite of himself, he creates a demand for his product on its merits. And because we can produce in this country, and do produce in this country, at least as good, and in many lines far better, food products than any other country, we create for the American product a demand on its merits as an American product, which helps the producer in this country, and ultimately hurts the importer.

In this way we help the American industry as against the foreign industry in a most legitimate and effective way, and we educate the American consumer to realize that the American product may be just as good, and often is far superior, to the imported product. And while the Food and Drugs Act does that for the domestic food and drug product, the educational value to the consumer is not confined to food and drug products, but spreads over all our American products and will in time lead Americans to realize that what we

produce at home may be a great deal better, and often is a great deal better than what they buy under a fancy label and a foreign name.

Now that the Food and Drugs Act is really an economic act, and an act for suppressing unfair competition is shown particularly in the most recent amendment to the Food and Drugs Act, the so-called net weight amendment, which requires that every package of food shall state plainly upon the label how much is contained within the package. That is what the act is for, divested of all legal terms.

Now that is a matter which has not to do with health, which has not to do with hygiene, except insofar as if the consumer is cheated and pays too much for his foods, he is that much nearer the starvation line. But actually that is, in its essence, nothing more than an act to prevent unfair competition as looked at from the point of view of the producer, the point of view from which the act is very seldom viewed.

Now this net weight amendment, we would think, would be an exceedingly easy matter to enforce, where you just weigh or measure or count what is in a package, and compare it with what is on the label; and, if they do not tally, that is all there is to it.

That might be—would be the case if Congress had not realized that there are limits to human accuracy, that there are limits to the exactness with which food may be packed and weighed, that there are limits to the accuracy with which bottles and boxes and cartons and cans can be manufactured. And so Congress, in its wisdom, saw fit to enact a law which permitted reasonable variations and reasonable tolerances from the amount stated on the label.

The result is that the enforcement of this act to protect the consumer and be fair to the manufacturers is a pretty intricate and complex matter, I am going to tax your patience a little by explaining a few of the difficulties that are involved.

There once was a poet who said that he would order his ascension robe when claret bottles did not harbor dimples that would hold your fist. Now the Food and Drugs Act, in its new amendment, is going to make those dimples disappear. But I do not know if we are going to order our ascension robes in consequence.

But even if we can make the dimples in the bottles disappear, we cannot always be certain that the bottle will have exactly the contents stated on the label. Bottles are, most of them, blown into a mould. The amount of glass that goes into the mould will vary with different blowers and with different moulds, with various conditions, with the kind of glass, and what-not. And so one bottle will be a little thicker than another, one bottle will have a bigger lump than the other, one will have a thicker bottom, the shape will be different. It is not humanly possible to make the bottles absolutely accurate.

Now we might demand, under the Food and Drugs Act, that the manufacturer should buy a bottle which was to a considerable degree larger than the quantity of liquid he was going to put into that bottle, and that he should measure out the exact quantity that was to go into that bottle.

The result would be, in the first place, that some bottles would be full up to the cork, some only to the neck, and some would not be quite full, and the consumer would not buy bottles that were not full; the consumer wants a full bottle, because the consumer does not measure.

Then, if we are going to require every bottle to be filled by hand, it is going to be expensive and one of two things will happen: The liquids that are sold by the quart, the cost of carefully measuring and filling will be assessed on the consumer; he will pay so much more a quart. Bottles that are sold as five-cent bottles or ten-cent bottles or twenty-five-cent bottles, why the manufacturer will simply reduce the size to meet the extra cost of packing, and the consumer will get a little less for five cents, for ten cents, and less for twenty-five cents.

So that, in considering these reasonable variations and tolerances that Congress has fixed, we must consider first how accurate a bottle can be made, which requires an investigation of the entire industry of bottle production and includes some very interesting labor questions. Then we must consider how accurately the automatic filling machines can work. Then we must fix limitations of variations and tolerances which will insure the least possible variation in the bottle, the least possible variation in the filling, without imposing restrictions on the manufacturers of bottles and on the filler of bottles that will be so great that the price to the consumer will be materially increased.

Another example of the sort of thing the Bureau of Chem-

istry, in enforcing this amendment, is up against is the question of the moisture content of foods. Perhaps very few of you have realized that a pound loaf of bread may vary very much in its nutritive value, that two-pound loaves of bread may vary in their nutritive value, although they have the same weight, according to the way that bread was baked, the way it was made, according to how much water remains in the bread when it goes to the consumer. It is entirely possible to make two pound loaves of bread with one containing five or ten per cent more food than the other, the difference being water. Now bread, unless it is wrapped, does not happen to come under this amendment because the amendment provides that the weight or net contents must only be stated for food in package form.

But the same principle applies to a number of products in which your association is indirectly interested.

Take the question of dried apples. Dried apples should contain not much more than about 24 per cent of water. One state permits a water content of 27 per cent. This law was passed in that state largely through the influence of the apple driers themselves; but they have come to me singly and said: We made a mistake; 27 per cent is too much, because our apples spoil when they have got so much, and we wish we did not have the law, and, Can't you help us? But, you see, a man may furnish a pound of apples, and if it has 24 per cent of water it will have more food in it per pound than another brand of dried apples, evaporated apples, with 27, 30 or 33 per cent of water. Now, that is a question that has to be taken into consideration. It is not fair to allow the man with 33 per cent of water in his product to compete under the same conditions with the man that has a product with 24 per cent of water in it.

This water content of food is important, not merely because it enables manufacturers to compete unfairly with one another and to sell to the consumer water at the price of food, but also because it involves a question of shrinkage. Apples containing 30 per cent of water, if they remain on the grocers' shelves for a long time, are going to lose water, going to dry out. Now a pint of apples six months later will not be any longer a pint of apples, though it may have been a pint when packed. Now, under the Food and Drugs Act we will be constantly confronted with this difficulty. We have got to consider the shrinkage of all sorts of products, and that shrinkage is not going to be the same in Savannah or New Orleans as it is going to be in Denver, because in New Orleans and Savannah we have a moist and humid and warm climate, and in Denver we have a cool and dry one.

Now, the Bureau of Chemistry has made shipments of food products of various moisture content into all parts of the country and has stored them there under commercial conditions, and has weighed them from time to time and determined the losses of moisture in these different localities. That is done in order that, when the time comes, we may have our evidence to use in court, if necessary, because we will have to prove that a product was short weight or short measure or short count at the time when it went into interstate commerce, which could not always be the time at which the collection of the sample is made. We have made a very extensive study, for example, upon macaroni. Macaroni contains ordinarily 12 or 14 per cent moisture, and in New Orleans it may gain in weight, while if you shipped it to Denver it may lose in weight, and they may lose in one place in summer, and gain the same place in winter. All these matters will have to be aired in court, and we will have to be ready to present our evidence and make our point.

Another thing which is in a curious dilemma at present, another class of people, are the people who put liquor in barrels. The Internal Revenue Bureau will not permit them to make their barrels above a certain size because of the tax levied per barrel. Beer, for instance, is so much a barrel, and if they make their barrels larger than a standard barrel they are getting a certain amount of beer without paying a tax on it. But every time the empty barrel comes back to the brewery it has to be recoopered and repitched, and every time it does that it shrinks. Now after a few months their barrels are smaller than the standard barrel, and they are paying the Government Internal Revenue on more beer than they are selling. But under this new act, if their barrel is too small, why their product is misbranded. So if they make it too large, the Bureau of Internal Revenue gets them. If they make it too small, the amendment gets them, and they do not know where they are at (laughter).

A Member: Do you know where they are at?

Dr. Alsberg: That is only one of the curious situations that have arisen and will arise under this new law. Now, of

course, we have got to work all these things out, but it is going to be the work of years, and it is going to take innumerable careful investigations on the part of the Bureau of Chemistry to get at the facts so that we may have the evidence to present in court when that is necessary.

There are one or two abuses which, perhaps, we will be able to straighten out under this amendment that the department has been besieged for years to study. One of them I think is the question of the packing of lemons. I do not know whether we will be able to stop that, but it shows the curious ramifications of this amendment. When a man buys lemons in a New York auction, for example, he buys 300 lemons or 360, and that means that there are 300 lemons to the box, and there has been a definite custom established on the size of the lemons which shall be sold for 300 lemons to the box. Now, a good many of the Sicilian lemon exporters have devised the clever scheme—this is done in Sicily—of changing the size and shape of the box. They still put 300 lemons into it, but they are little lemons, and the man who buys 300 lemons to the box in this country is cheated. He thinks he is getting the standard size for 300, while he is actually getting little ones instead of fair-sized lemons.

Now, that is one form of unfair competition that we may, perhaps, be able to stop through this amendment under the Food and Drugs Act.

My reason, ladies and gentlemen, for discussing all these curious features which have come up when we looked into the future enforcement of this amendment, is to point out that this amendment, like so much of the Food and Drugs Act, is not a sanitary or hygienic measure, but is merely a measure for preventing unfair competition and for protecting the consumer, however, in so far as it prevents unfair competition. It is a protection, it is a tremendous benefit to the producers like yourselves, who ask no favors, but who depend upon their business ability and the quality of their products for their success.

If I have been able to make this little-understood feature of the Food and Drugs Act clear, I believe that perhaps I may have created in some of you a friendlier spirit towards this act. And if I have been able to do that, I shall feel that I have entirely accomplished the purpose for which I came here. I thank you very much. (Applause.)

Hon. William Redfield, secretary of commerce, made an interesting address on "Export Trade—How to Get It and How to Keep It." Secretary Redfield pointed out the necessity for making goods of uniform quality at a fair price. When this is done the Government, through its machinery, could do much to promote an interest in our goods.

WHEREAS, The Baltimore Canned Goods' Exchange has, by liberal expenditure of funds and the personal efforts of its members and carefully systematized preparation for our coming, greatly aided in the success of this convention and in the comforts of the delegates. Therefore, be it

RESOLVED, That The National Cannery Association in convention assembled does hereby express to the Baltimore Canned Goods' Exchange its sincere appreciation of the work they have done and of the welcome that they have given us to their city.

RESOLVED, That the National Cannery Association express their thanks and appreciation for the courtesies which have been extended to them by his Eminence, James Cardinal Gibbons; his Excellency, Phillips Lee Goldsborough, Governor of Maryland; his Honor, James H. Preston, Mayor of the City of Baltimore, and the other officials who have made our welcome so cordial and our entertainment so complete. Be it further

RESOLVED, That the ladies of the City of Baltimore be tendered our fullest thanks for the delightful and complete manner in which they have entertained the visiting ladies, nothing having been left undone to make their stay enjoyable.

RESOLVED, That we hereby express our thanks and appreciation to the Honorable William C. Redfield, Secretary of Commerce, for his address at this convention and for the substantial aid his department has given the canned food industry in extending its export trade.

WHEREAS, The proceedings of the annual conventions of The National Cannery Association are accepted as

authoritative aid in the development of our industry, and

WHEREAS, The addresses and papers of the 1914 convention have been unusually instructive and interesting. Therefore, be it

RESOLVED, That we extend our sincere thanks and appreciation of their work to all who have participated, and especially to Mrs. M. V. Terhune (Marion Harland), Mrs. Winifred Harper Cooley, Hon. J. Harry Covington, Hugh S. Orem, Dr. C. L. Alsberg, Mr. O. B. McGlasson, Mr. John A. Green, Capt. J. J. Reynolds, Mr. Miller Freeman, Mr. Geo. G. Bailey, Dr. H. J. Wheeler, John A. Lee, Mr. W. C. Langbridge and Mr. Richard Dallam.

WHEREAS, The Department of State has co-operated with our Association in every possible way in developing our trade—

WE THEREFORE tender to the Hon. William J. Bryan, Secretary of State, and to his associates, our sincere appreciation for this co-operation and support.

RESOLVED, That our relations during the past year with The National Wholesale Grocers' Association, Southern Wholesale Grocers' Association and the National Retail Grocers' Association, have been very cordial and profitable, and that we hereby extend to these Associations our compliments and the best wishes for a continuance of their success and of these pleasant relations.

RESOLVED, That we again assert our satisfaction and accord with the National Pure Food Laws and with the fair and impartial execution of the same under Dr. C. L. Alsberg, and we hereby undertake and bind ourselves to give loyal support to the enforcement of the present law and of any reasonable extension of pure food supervision that may be promulgated by Congress or the Department of Agriculture.

WHEREAS, There is now pending in the House of Representatives of the United States, a Bill, which if it becomes a law, will require the year of packing to be stated on the label of all canned foods, and

WHEREAS, This requirement would result in no benefit to the consumer, for the reason that the age of canned foods has nothing whatever to do with the deterioration thereof, some canned foods in fact, improving with age, and would on the contrary work a great detriment and injustice to the canning industry by causing unnecessary and unmerited alarm among the consumers; therefore, be it

RESOLVED, That the members of this Association be urged to oppose the passage of this Bill.

WHEREAS, The American Can Company, has by an outlay of a large sum of money, equipped The National Canners' Laboratory in the City of Washington, and presented it to the canning industry, and

WHEREAS, The presentation to the canning industry of this valuable aid to the continued success thereof, has been made with evident generosity and real purpose to better the standard of our products; therefore, be it

RESOLVED, That we hereby extend our thanks to the American Can Company, for this valuable laboratory equipment, as well as for their financial and moral support to the other features of our work.

RESOLVED, That the thanks of the National Canners' Association be and hereby is extended to the allied interests who have so liberally contributed toward the expense of our laboratory and publicity work. We are especially indebted to The Canning Machinery & Supplies' Association, The National Canned Foods' and Drier Fruits' Brokers' Association, The Continental Can Company, American Sheet and Tin Plate Company, Max Arms Machine Company, Johnson-Morse Can Company, Southern Can Company, The John Boyle Company, W. W. Boyer & Company, and the Worcester Salt Company.

RESOLVED, That we hereby extend to the Committee on Canned Foods' Week and to the National Wholesale Grocers' Association, Southern Wholesale Grocers' Association, and National Retail Grocers' Association, our thanks and appreciation of and for the financial and moral support which made this work a success.

WHEREAS, The National Canners' Association has, for a number of years, been greatly benefited by the friendship, advice and support of the late Arthur M. Wilson, of Hartford, Conn., whose death has brought to our members profound regret and grief; therefore, be it

RESOLVED, That we extend our sincere sympathy in their great loss, to the family, friends and business associates of Mr. Wilson, and also the National Wholesale Grocers' Association, of which he was an honored member.

WHEREAS, Almighty God, in His Divine Wisdom has taken from our midst, Mr. George H. George, a man who by his worthiness, integrity and stirring character has attained a position of honor and respect in his community.

WHEREAS, Mr. George was an active and influential member of our Association, and honored member of our Board of Directors, and one who had, by his energy and marked ability, aided greatly in establishing our Association in the northwest; therefore, be it

RESOLVED, That we extend to the family, friends and business associates of Mr. George, our sincere sympathy in their great loss and bereavement.

RESOLVED, That the selection of the location of and the arrangements for the 1915 annual convention is hereby referred to the presidents of the National Canners' Association, Machinery and Supplies' Association and the Canned Foods' and Dried Fruit Brokers' Association, with power to act.

RESOLVED, That we hereby extend the thanks to the National Canners' Association, to our President, Honorable Bert M. Fernald, our Vice President, Mr. William C. Leitsch, and our Secretary, Mr. Frank E. Gorrell, and to our Board of Directors, who have guided our organization so successfully and wisely during the past year.

TO HON. BERT M. FERNALD.

WHEREAS, The National Canners' Association has, during the past year, extended its usefulness and increased in the confidence of its members and of the public, and

WHEREAS, A very large measure of this success is attributable to our President, Bert M. Fernald, who has guided the organization with great wisdom and cordiality; therefore, be it

RESOLVED, By the National Canners' Association assembled in annual convention in the City of Baltimore, that we hereby express to Mr. Fernald, our sincere thanks and our appreciation of his fidelity and wisdom; be it further

RESOLVED, That this resolution be spread upon the records of the Association as a perpetual evidence of our love and esteem.

C. T. LEE,
GEO. N. NUMSEN,
F. J. MATTICE,
F. M. SHOOK,
GEO. E. STOCKING.

THE FOOD CHEMIST.

Dr. Andrew L. Winton of the government food laboratories at Chicago, addressed a meeting of the Indiana section of the American Chemical Society in Indianapolis this month on "The Food Chemist." He divided the history of food adulteration into four periods: (1) the years when there was no adulteration, because of the fact that there were few products distributed widely that could be adulterated and because there were no means of adulteration; (2) the period when adulterating became a fine art and there were few means of detecting the adulteration; (3) the period when the food chemists made a determined attack on the practice of adulteration, and (4) the period when the grosser forms of adulteration were wiped out.

"Some people have wondered," said Dr. Winton, "when inorganic chemistry became so popular, why the subject of food chemistry should have become so neglected. It is interesting to note, as an agricultural chemist, how in this country inspection started, first with plant food, next with animal food, and then in the pure food movement."

He pointed out that at the time when inorganic chemistry was so popular there was little need for food chemistry, since most of the food articles were made at home and practically the only products that could be adulterated were rum and sugar. One of the features of Dr. Winton's talk was the exhibit of forty-five samples of ordinary adulterations.

Decision in Bleached Flour Case

FEDERAL SUPREME COURT UPHOLDS DECREE OF
APPELLATE COURT IN FAVOR OF DEFENDANT

THE decision of the Supreme Court of the United States in the famous bleached flour case, which follows, handed down February 24th, marks the culmination of substantially six years of continuous labor on the part of Mr. Bruce S. Elliott in fighting the battle of a sane and con-



Bruce S. Elliott.

sistent interpretation and administration of the pure food law, as against the arbitrary, illogical, and unjust construction and execution thereof championed by the element formerly in power at Washington and headed by the former chief of the Bureau of Chemistry, Doctor Harvey W. Wiley. Like all great cases, the decision in the bleached flour case involved a principle, and upon its determination depended the course to be pursued by the Government in scores of other cases. Put in plain language, the principle involved was whether the Government should have the arbitrary power to condemn and destroy the property of a citizen without being called upon to prove that it was, or could be, harmful or deleterious; or whether the citizen, whose property was attacked, should retain the privilege of his constitutional rights in having a jury decide whether his property was of a character to be so dealt with. The decision of the Court of Appeals, and the decision of the Supreme Court of the United States affirming that decision, will serve, it is hoped, to put a quietus forever on the race of wind-jamming, would-be reformers, who represent no interest but their own craving for notoriety, and whose pernicious activity has cost the public, and particularly manufacturers and purveyors of food, untold thousands of dollars, without one particle of good inuring to the consuming public in return.

It is probable that in the length of time involved, in the magnitude of the interests affected, the number of eminent

experts enlisted, and the enormous sum expended by the millers and the Government in defraying the innumerable expenses of such litigation, the case of the United States vs. The Lexington Mill & Elevator Company, involving the legality of flour bleached by the Alsop electrical process, will rank for all time as the greatest case tried under the pure food law. Although there were many dark days intervening between its inception and final triumphant conclusion, at no time has Mr. Elliott doubted the outcome. He believed absolutely in the righteousness and justice of his cause, and from President Taft down, through all of the ranks of Government officials which the interests of the case necessitated his seeing at one time or another, it is safe to say that there was not one who did not believe in his absolute sincerity, irrespective of their view as to the merits of his case. It was a great fight, and made victory all the more pronounced by reason of the fact that the Government spared neither the use of means nor talent, in an endeavor to secure a decision in its favor.

Those in a position to know say that the Government officials accept the decision with the utmost equanimity, believing that their duty required them to seek the decision of the highest court in the land on the proper construction of the law involved. While the case is sent back for retrial, being an affirmance of the decision of the Court of Appeals which so ordered, the decision of the Supreme Court is understood to be a final decision, as the Government prosecutors, in effect, conceded that if the law were construed as contended for by the claimant, and as decided by the Supreme Court, it could not prove bleached flour to be harmful.

The decision follows:

SUPREME COURT OF THE UNITED STATES.

The United States of America,
Petitioner,
vs.
Lexington Mill & Elevator Co.

On writ of certiorari to
the United States
Circuit Court of Ap-
peals for the Eighth
Circuit.

[February 24, 1914.]

Mr. Justice Day delivered the opinion of the court.

The petitioner, the United States of America, proceeding under section 10 of the Food and Drugs Act (34 Stat. 768), by libel filed in the District Court of the United States for the Western District of Missouri, sought to seize and condemn 625 sacks of flour in the possession of one Terry, which had been shipped from Lexington, Nebraska, to Castle, Missouri, and which remained in original, unbroken packages. The judgment of the District Court, upon verdict, in favor of the Government, was reversed by the Circuit Court of Appeals for the Eighth Circuit (202 Fed. 615), and this writ of certiorari is to review the judgment of that court.

The amended libel charged that the flour had been treated by the "Alsop Process," so-called, by which nitrogen peroxide gas, generated by electricity, was mixed with atmospheric air and the mixture then brought in contact with the flour, and that it was thereby adulterated under the fourth and fifth subdivisions of section 7 of the act, namely, (1) in that the flour had been mixed, colored and stained in a manner whereby damage and inferiority were concealed and the flour given the appearance of a better grade of flour than it really was, and (2) in that the flour had been caused to contain added poisonous or other added deleterious ingredients, to-wit, nitrites or nitrite reacting material, nitrogen peroxide, nitrous acid, nitric acid and other poisonous and deleterious substances which might render the flour injurious to health. The libel also charged that the flour was adulterated under the first subdivision of section 7, and was misbranded; but the Government does not urge these features of the case here. The verdict was broad enough to cover the charge under the first subdivision of section 7, but in the view we take of the case as to the instruction of the court under subdivision 5 need not be noticed.

The Lexington Mill & Elevator Company, the respondent herein, appeared, claiming the flour, and answered the libel, admitting that the flour had been treated by the Alsop

Process, but denying that it had been adulterated and attacking the constitutionality of the act.

A special verdict to the effect that the flour was adulterated was returned and judgment of condemnation entered. The case was taken to the Circuit Court of Appeals upon writ of error. The respondent contended that, among other errors, the instructions of the trial court as to adulteration were erroneous and that the act was unconstitutional. The Circuit Court of Appeals held that the testimony was insufficient to show that by the bleaching process the flour was so colored as to conceal inferiority and was thereby adulterated, within the provisions of subdivision 4. That court also held—and this holding gives rise to the principal controversy here—that the trial court erred in instructing the jury that the addition of a poisonous substance, in any quantity, would adulterate the article, for the reason that “the possibility of injury to health due to the added ingredient and in the quantity in which it is added, is plainly made an essential element of the prohibition.” It did not pass upon the constitutionality of the act, in view of its rulings on the act’s construction.

The case requires a construction of the Food and Drugs Act. Parts of the statute pertinent to this case are:

“Sec. 7. That for the purposes of this act an article shall be deemed to be adulterated: . . .

“In case of food:

“First. If any substance has been mixed and packed with it so as to reduce or lower or injuriously affect its quality or strength. . . .

“Fourth. If it be mixed, colored, powdered, coated, or stained in a manner whereby damage or inferiority is concealed.

“Fifth. If it contain any added poisonous or other added deleterious ingredient which may render such article injurious to health. . . .

“Sec. 10. That any article of food, drug, or liquor that is adulterated or misbranded within the meaning of this act, and is being transported from one state, territory, district, or insular possession to another for sale, or, having been transported, remains unloaded, unsold, or in original unbroken packages, . . . shall be liable to be proceeded against in any district court of the United States within the district where the same is found, and seized for confiscation by a process for libel for condemnation. And if such article is condemned as being adulterated or misbranded, or of a poisonous or deleterious character, within the meaning of this act, the same shall be disposed of by destruction or sale, as the said court may direct.”

Without reciting the testimony in detail it is enough to say that for the Government it tended to show that the added poisonous substances introduced into the flour by the Alsop Process, in the proportion of 1.8 parts per million, calculated as nitrogen, may be injurious to the health of those who use the flour in bread and other forms of food. On the other hand, the testimony for the respondent tended to show that the process does not add to the flour any poisonous or deleterious ingredients which can in any manner render it injurious to the health of a consumer. On these conflicting proofs the trial court was required to submit the case to the jury. That court, after stating the claims of the parties, the Government insisting that the flour was adulterated and should be condemned if it contained any added poisonous or other added deleterious ingredient of a kind or character which was capable of rendering such article injurious to health; the respondent contending that the flour should not be condemned unless the added substances were present in such quantity that the flour would be thereby rendered injurious to health, gave certain instructions to the jury. Part of the charge, excepted by the respondent, reads:

“The fact that poisonous substances are to be found in the bodies of human beings, in the air, in potable water, and in articles of food, such as ham, bacon, fruits, certain vegetables, and other articles, does not justify the adding of the same or other poisonous substances to articles of food, such as flour, because the statute condemns the adding of poisonous substances. Therefore the court charges you that the Government need not prove that this flour or foodstuffs made by the use of it would injure the health of any consumer. It is the character—not the quantity—of the added substance, if any, which is to determine this case.”

On the other hand the respondent insisted that the law is, and requested the court to charge the jury:

“That the burden is upon the prosecution to prove the truth of the charge in the libel, that by the treatment of the

flour in question by the said Alsop Process it has been caused to contain added poisonous or other added deleterious ingredients, to-wit, nitrites or nitric reacting material, which may render said flour injurious to health.

“And in this connection you are further instructed that it is incumbent upon the Government to prove that any such added poisonous or other added deleterious ingredients, if any contained in said flour, are of such a character and contained in the flour seized in such quantities, conditions and amounts as may render said flour injurious to health, and unless you find that all of such facts are so proven you cannot find against the claimant or condemn the flour in question under that charge in the libel, and if you fail to so find your verdict upon that count or charge in the libel must be in favor of the claimant or defendant.

* * * * *

“The law does not prohibit the adding of nitrites or nitric reacting material to flour, and a jury cannot find for the Government or against the claimant, even if it be shown that nitrites or nitrite reacting material was added to the flour in question, unless they believe from a preponderance of the evidence that such addition, if any, rendered said flour injurious to the health of those who might consume the bread or other foods made from said flour.”

It is evident from the charge given and refused that the trial court regarded the addition to the flour of any poisonous ingredient as an offense within this statute, no matter how small the quantity, and whether the flour might or might not injure the health of the consumer. At least such is the purport of the part of the charge above given, and if not correct, it was clearly misleading, notwithstanding other parts of the charge seem to recognize that in order to prove adulteration it is necessary to show that the flour may be injurious to health. The testimony shows that the effect of the Alsop Process is to bleach or whiten the flour and thus make it more marketable. If the testimony introduced on the part of the respondent was believed by the jury they must necessarily have found that the added ingredient, nitrites of a poisonous character, did not have the effect to make the consumption of the flour by any possibility injurious to the health of the consumer.

The statute upon its face shows that the primary purpose of Congress was to prevent injury to the public health by the sale and transportation in interstate commerce of misbranded and adulterated foods. The legislation, as against misbranding, intended to make it possible that the consumer should know that an article purchased was what it purported to be; that it might be bought for what it really was and not upon misrepresentations as to character and quality. As against adulteration, the statute was intended to protect the public health from possible injury by adding to articles of food consumption poisonous and deleterious substances which might render such articles injurious to the health of consumers. If this purpose has been effected by plain and unambiguous language, and the act is within the power of Congress, the only duty of the courts is to give it effect according to its terms. This principle has been frequently recognized in this court. *Lake County v. Rollins*, 130 U. S. 662, 670:

“Where a law is expressed in plain and unambiguous terms, whether those terms are general or limited, the legislature should be intended to mean what they have plainly expressed, and consequently no room is left for construction.”

Hamilton v. Rathbone, 175 U. S. 314, 421:

“The cases are so numerous in this court to the effect that the province of construction lies wholly within the domain of ambiguity, that an extended review of them is quite unnecessary.”

Furthermore, all the words used in the statute should be given their proper signification and effect; *Washington Market Co., v. Hoffman*, 101 U. S. 112, 115:

“We are not at liberty,” said Mr. Justice Strong, “to construe any statute so as to deny effect to any part of its language. It is a cardinal rule of statutory construction that signification and effect shall, if possible, be accorded to every word. As early as in Bacon’s Abridgement, sec. 2, it was said that ‘a statute ought, upon the whole, to be so construed that, if it can be prevented, no clause, sentence, or word shall be superfluous, void or insignificant.’ This rule has been repeated innumerable times.”

Applying these well-known principles in considering this statute, we find that the fifth subdivision of section 7 provides that food shall be deemed to be adulterated: “If it contain any added poisonous or other added deleterious ingredient which may render such article injurious to health.”

The instruction of the trial court permitted this statute to be read without the final and qualifying words, concerning the effect of the article upon health. If Congress had so intended the provision would have stopped with the condemnation of food which contained any added poisonous or other added deleterious ingredient. In other words, the first and familiar consideration is that, if Congress had intended to enact the statute in that form, it would have done so by choice of apt words to express that intent. It did not do so, but only condemned food containing an added poisonous or other added deleterious ingredient when such addition might render the article of food injurious to the health. Congress has here, in this statute, with its penalties and forfeitures definitely outlined its inhibition against a particular class of adulteration.

It is not required that the article of food containing added poisonous or other added deleterious ingredients must affect the public health, and it is not incumbent upon the Government in order to make out a case to establish that fact. The act has placed upon the Government the burden of establishing, in order to secure a verdict of condemnation under this statute, that the added poisonous or deleterious substances must be such as may render such article injurious to health. The word "may" is here used in its ordinary and usual signification, there being nothing to show the intention of Congress to affix to it any other meaning. It is, says Webster, "an auxiliary verb, qualifying the meaning of another verb, by expressing ability, . . . , contingency or liability, or possibility or probability." In thus describing the offense Congress doubtless took into consideration that flour may be used in many ways, in bread, cake, gravy, broth, etc. It may be consumed, when prepared as a food, by the strong and the weak, the old and the young, the well and the sick; and it is intended that if any flour, because of any added poisonous or other deleterious ingredient, may possibly injure the health of any of these, it shall come within the ban of the statute. If it cannot by any possibility, when the facts are reasonably considered, injure the health of any consumer, such flour, though having a small addition of poisonous or deleterious ingredients, may not be condemned under the act. This is the plain meaning of the words and in our view needs no additional support by reference to reports and debates, although it may be said in passing that the meaning which we have given to the statute was well expressed by Mr. Heyburn, chairman of the committee having in charge upon the floor of the Senate (Congressional Record, vol. 40, pt. 2, p. 1131):

"As to the use of the term 'poisonous,' let me state that everything which contains poison is not poison. It depends on the quantity and the combination. A very large majority of the things consumed by the human family contain, under analysis, some kind of poison, but it depends upon the combination, the chemical relation which it bears to the body in which it exists as to whether or not it is dangerous to take into the human system."

And such is the view of the English courts construing a similar statute. The English statute provides (s. 3, of the Sale of Food and Drugs Act, 1875):

"No person shall mix, color, . . . or order or permit any other person to mix, color, . . . any article of food with any ingredient or material so as to render the article injurious to health."

That section was construed in *Hull v. Horsnell*, 68 J. P. 591, which involved preserved peas, the color of which had been retained by the addition of sulphate of copper, charged to be a poisonous substance and injurious to health. There was a conviction in the lower court. Lord Alverstone, C. J., in reversing and remitting the case on appeal, said:

"In my opinion, if the justices convicted the appellant of an offense under s. 3 of the Sale of Foods and Drugs Act, 1875, on the ground that the ingredient mixed with the article of food was injurious to health—that the sulphate of copper was injurious to health, and not on the ground that the peas by reason of the addition of sulphate of copper were rendered injurious to health, the conviction is clearly wrong. To constitute an offense under the latter part of s. 3 the article of food sold must, by the addition of an ingredient, be rendered injurious to health. All the circumstances must be examined to see whether the article of food has been rendered injurious to health."

We reach the conclusion that the Circuit Court of Appeals did not err in reversing the judgment of the District Court for error in its charge with reference to subdivision five of section 7.

The Circuit Court of Appeals reached the conclusion that there was no substantial proof to warrant the conviction,

under the fourth subdivision of section 7, that the flour was mixed, colored and stained in a manner whereby damage and inferiority was concealed. As the case is to be retried to a jury, we say nothing more upon this point.

As to the objection on constitutional grounds, it is not contended that the statute as construed by the Circuit Court of Appeals and this court is unconstitutional.

It follows that the judgment of the Circuit Court of Appeals reversing the judgment of the District Court must be affirmed, and the case remanded to the District Court for a new trial.

Affirmed.

True copy.

Test:

Clerk Supreme Court, U. S.

DEODORIZED OLIVE OIL.

Editor AMERICAN FOOD JOURNAL: I wish to call your attention to "The Danger Threatening from the Deodorization of Low Grade Olive Oils."

This is quite a new branch of industry in some of the European olive producing countries and I believe is going to interfere with the legitimate dealers who handle pure, natural olive oil. Besides this, the olive oil that is deodorized is generally a low-grade olive oil that has been treated by what is known as alkalic buck and sulphuric acid.

Olive oil treated with these acids is not wholesome, but on the contrary is injurious to the human race, while a pure, natural olive oil is wholesome and healthful and is not only an article of food, but when used medicinally it strengthens the intentional organs.

I believe that the United States Government should take action regarding the deodorization of olive oil and if it is allowed to enter the United States, it should be labeled "Deodorized Olive Oil." It would be only justice to the American people if the United States would not allow the importation at all of this kind of olive oil.

On July 16, M. Thery, of the Society of Agriculture in France, made a communication regarding this new chemical process, through which it is possible to make edible the inferior oils—the dregs and refuse—which heretofore have been used for lighting and industrial purposes. This new industry has also been studied by M. Chapelle, chemist, in Marseilles.

The treatment of the impure olive oils, to make them palatable, is as follows:

After the oil has been subjected to an alkaline lye, it is worked through fullers' earth and then handled with sulphuric acid and bone charcoal. Thereupon follows the deodorization, through introduction of steam which has been generated in a vacuum. Before this the oil is brought to 30 or 35 degrees.

The cost of deodorization varies between 20 and 50 cents per each 200 pounds. The waste of oil amounts to about 1 per cent. The complete process costs 60 to 80 cents per 200 pounds, according to the amount of acidity in the oil.

I feel that you are unbiased and that you are ready to expose any firms that are handling deodorized olive oils and offering them to the trade as pure, natural olive oils.

R. W. EASTLICK.

MARYLAND OYSTER LAW.

The Maryland oyster tax law of 1910 was annulled as unconstitutional by the United States Supreme Court.

Justice Lamar, in announcing the court's opinion, said that the operation of the tax under a previous law showed that only one-third of the amount collected was used for inspection service by the state.

The law authorized the collection of a tax of 1 per cent per bushel upon all oysters unloaded from vessels and not for further shipment by water. The law was attacked by D. E. Foote & Co. on the ground that the tax was used to defray all expenses of the state fishing force, and therefore was in conflict with the constitutional provision limiting the levying of duties on imports to an amount sufficient to meet the expenses of inspection.

The fifth annual convention of the Association of Ice Cream Manufacturers of Maryland, held at the Hotel Emerson, Baltimore, on February 9, was one of the largest meetings of the year. The register of members and visitors showed 106 in attendance, and there were present but unregistered at least half a score more. Thirteen states and the District of Columbia were represented in the gathering. Among the visitors were the president, the vice president and several directors of the National Association. The business meeting was followed by a banquet at the Emerson.

Buffalo Lithia Water Case

GOVERNMENT WINS CASE AGAINST WATER COMPANY

Following is the text of the decision in the case of the United States against Buffalo Lithia Water. The opinion was handed down February 16:

IN THE SUPREME COURT OF THE DISTRICT OF
COLUMBIA

HOLDING A DISTRICT COURT.

United States of America,

Libelants,

vs.

District No. 928.

Seven Cases, More or Less,
of "Buffalo Lithia Water."

OPINION FILED BY JUDGE GOULD.

The original bill in this case was filed December 21, 1910. It sought to condemn seven cases of bottles containing water labeled as "Buffalo Lithia Water," on the ground that they were misbranded and thereby violated the Act of June 30, 1906, the misbranding being alleged to consist of statements that the liquid was a lithia water, whereas it did not contain an appreciable amount of lithium, and would not give the therapeutic effect of lithium when a reasonable quantity was consumed, and, further, that the water was not a lithia water, or entitled by reason of its ingredients to be so called. The libel also alleged, as a further misbranding, that the bottles were offered for sale under the distinctive name of lithia water, when in fact it was not lithia water, and that the bottles were labeled and branded so as to deceive and mislead the purchaser thereof.

A demurrer having been sustained to this libel on April 6, 1912, an amended libel was filed April 5, 1912, omitting the original allegation that the water did "not contain an appreciable amount of lithium, and will not give the therapeutic effect of lithium when a reasonable quantity" is consumed. A demurrer to the amended libel was over-ruled June 13, 1912, whereupon the claimants, on December 12, 1912, filed their answer denying that the water was misbranded. Upon the issue thus joined, voluminous testimony has been taken in different parts of the country. The questions of fact involved have, by agreement been submitted to the court sitting as a jury.

It is somewhat difficult to accurately describe the label as it is voluminous, but the most striking feature of it are the words "Buffalo Lithia Water Springs No. 2," in white letters, relatively large, on a blue field, surrounding the figure of a draped woman, in a sitting posture, holding an urn on her lap, and herself surrounded by the words in much smaller type "Buffalo Lithia Springs Water, Nature's Materia Medica." Beneath the foregoing, in smaller but plain type is the following: "This water is indicated in all affections due to the Uric Acid Diathesis—Gout or Rheumatism in all their forms, Stone in the Bladder, Kidneys or Liver, Bright's Disease and Kidney Diseases of every form, Albuminuria of Pregnancy or Scarlet Fever, Uraemia and its accompanying troubles, Menstrual Irregularities, Acid Dyspepsia, Nervous Disorder in all its forms, Malarial Fevers, and in the preparation of Artificial Food for Infants. Dose. From six to eight glasses of the ordinary size per day is the average dose. Many persons, however, take a larger quantity." At the bottom of the label are the words "Buffalo Lithia Springs Water Co., Buffalo Springs, Virginia." At the top are the words "Guaranteed under the Food and Drugs Act, June 30, 1906."

It is admitted by the Government that the water in controversy is a natural spring water taken from a spring known as "Buffalo Lithia Springs," situated at Buffalo Lithia Springs, in Mecklenburg County, Virginia. It is also admitted that the claimants, or their predecessors, have been continuously shipping and selling this water from this spring since 1878 under the label or brand "Buffalo Lithia Water."

There is little dispute as to the essential facts of the case. Naturally the first question which the controversy suggests is, what is a "lithia water"? There appears to be no definition given by the Pure Food Act or by the United States Pharmacopoeia as to the quantity of lithium which a given amount of water must contain in order to reasonably entitle it to be designated "lithia" water. The Government has offered the testimony of Chemists, Pharmacologists, Physicians

and Druggists to the effect that the common understanding is that a natural lithia water is one that contains enough lithium so that when a reasonable quantity is consumed a physiological or therapeutic effect would be obtained in consequence of the lithium content. This appears not only to be a fair and reasonably accurate definition, one which appeals to the common sense and understanding of a non-scientific person, but is supported by the overwhelming weight of the testimony in the case. Speaking generally, and as an individual of average intelligence and information, it would seem that if one were offered a water which the vendor told him was a "lithia" water, one would have the right to expect enough lithium in the water to justify its characterization as such, thus differentiating it from ordinary potable water; and this amount would reasonably be expected to have some effect upon the consumer of the water by reason of the presence of the lithium.

This is especially true in view of the fact that lithium has been quite commonly believed to have a therapeutic effect on physical ailments which may be classified generally under the head of the uric acid diathesis.

The second question which also arises quite naturally is as to the actual lithium content in a given quantity of the water in controversy. Several analyses were offered in evidence, made both by the Government and by the claimants. As these differ, so slightly, in respect to the amount of lithium found in a given quantity of water, those made by the Government will be taken as accurate. In addition, the evidence is uncontradicted that the analyses made by the Government experts were made according to the most improved methods, and no attempt was made to impune their accuracy or fairness.

Dr. Collins, an expert chemist, employed in the Bureau of Chemistry examined three samples of the water in controversy, two of which were part of the waterized. He gives in great detail every step taken by him in his analyses to determine the quantity of lithium. The result was that in two litres of the water (about two and one-fifth quarts) he found no weighable amount of lithium. That is, a chemical analysis showed absolutely no appreciable amount of lithium in the bottle of water of the size usually sold. By the use of the spectroscope, however, it was found that there was two-thousandths of a milligram in a litre; that is, about one-ten-thousandth of a gram per gallon of water, or one grain in ten thousand gallons of water. To further illustrate the infinitesimal quantity of lithium in this water, it was testified that the average dose of lithium as a uric acid solvent was from five to seven and a half grains three times a day. So that, for a person to obtain a therapeutic dose of lithium by drinking Buffalo Lithia Water he would have to drink from one hundred and fifty thousand to two hundred and twenty-five thousand gallons of water per day. It was further testified, without contradiction, that Potomac River water contains five times as much lithium per gallon as the water in controversy.

It has already been stated that the claimants made no question as to the accuracy of the Government analysis; it might be added that their own latest analysis, by the Lederle Laboratories in New York City, showed only a spectroscopic trace of lithium in the water.

The Government also produced Pharmacologists and Physicians, eminent in their professions, who testified that the amount of lithium disclosed in this water, either singly, or in combination with the other elements contained in it, could not, by any possibility, have any physiological or therapeutic effect upon the consumer.

It is concluded, therefore, that a person drinking Buffalo Lithia Water for the hoped for benefit he may derive from the lithium in it, is deceived and misled, because a potable quantity contains no appreciable lithium.

Moreover, this deception is increased and aggravated by the language on the label accompanying its designation as "Buffalo Lithia Water." Lithium is supposed to be a solvent for uric acid, to prevent the formation of calculi and to remove it from the system in rheumatism and gout. The label, immediately under the large letters "Buffalo Lithia Water," and in the center of the label, contains this language: "This

water is indicated in all affections due to the Uric Acid Diathesis—Gout or Rheumatism in all their forms, Stone in the Bladder, Kidneys or Liver, Albuminaria of Pregnancy or Scarlet Fever, Uraemia and its accompanying troubles, Menstrual irregularities, Acid Dyspepsia, Nervous Disorders in all its forms, Malarial Fevers, and in the preparation of Artificial Food for Infants." The word "indicated" as a medical term, as defined by Webster, means "to point as to the proper remedy." The Uric Acid Diathesis means the class of diseases due to the presence of an excess of Uric Acid. So that the purport and effect of the label to a purchaser is to tell him that this water, by reason of the lithium in it, is the proper remedy for those diseases which are due to uric acid of which lithia is a solvent.

It becomes pertinent to notice the attitude of the courts towards labels of this character, irrespective of the Pure Food Act.

Where the manufacturer of a liquid laxative medicine to which he gave the name of "syrup of figs" and who had spent vast sums in advertising it, sought to enjoin another from using the name, it was held that he was not entitled to the injunction because he falsely represented to the public that the juice of the fig was the important medicinal agent in the composition of the medicine, when in fact only a suspicion of fig juice was put into it, and the real laxative was senna. This was so held notwithstanding there was much evidence showing that it was a very useful medicine and prescribed by physicians of high standing. In deciding the case Judge Taft said: "This is a fraud upon the public. It is true it may be a harmless humbug to palm off upon the public as syrup of figs what is syrup of senna, but it is nevertheless of such a character that a court of equity will not encourage it by extending any relief to the person who seeks to protect a business which has grown out of and is dependent upon such deceit."

California Fig Syrup Co. v. Frederick Stearns & Co., 73 Fed. 812.

This case was subsequently approved and followed by the Supreme Court in Worden v. California Fig Syrup Co., 187 U. S. 519.

The same principle was applied in the cases of Memphis Keeley Institute v. Leslie E. Keeley Co. (C. C. A. Sixth Circuit) 155 Fed. 964, and Bear Lithia Springs Co. v. Great Bear Spring Co., 71 N. J. Eq. 595.

If the courts assume this attitude towards falsely labeled articles under the general rules of law and equity; *a fortiori* should they assume it in applying a statute, such as the Pure Food Act, which has for its objects "not only to protect the public from unwholesome food and drink, but to require that any article of food, drink or medicine shall be correctly described by its label."

U. S. v. Morgan, et al., 181 Fed., 587.

In the very able oral argument and elaborate brief of

claimant's learned counsel, there are two main contentions: 1st. They deny that the label represents that the contents of said bottles is a "lithia water." They insist that the label distinctly states that the contents of the bottles is that "particular natural mineral water known both as Buffalo Lithia Water and Buffalo Lithia Springs Water, and was taken" from the Buffalo Lithia Springs No. 2, etc.

In other words, the argument seems to be that if Buffalo Lithia Springs are falsely named, being called "Lithia" Springs, when they do not flow water containing lithium, therefore the proprietors have the right to sell the product as being Buffalo Lithia Springs Water, thus perpetuating upon the public the misnomer connected with the origin of the water. It is not apparent how the deceit practiced upon the public by the label is mitigated by carrying it back to the designation of the Spring from which the water comes.

2nd. It is next contended that if the word "lithia," as used on the label can be construed to represent that the contents of the bottles is "lithia water," such representation would not be false or misleading, within the purview of the Food and Drugs Act, because the contents of the bottles is a lithia water as the term is understood in the English language, viz., a natural spring water containing "some lithia" or "a trace of lithium."

Assuming that the term lithia water requires only "some" lithium in the water, it would seem that even that flexible term should not be attenuated to include a water which contained only one-ten thousandth of a grain in a gallon, and in which even a trace in two litres could only be ascertained by the use of the spectroscope. But the evidence in the case is overwhelming that the term lithia water, as ordinarily understood, means a water containing a sufficient amount of lithium to give a therapeutic effect when drunk in reasonable quantities. It is true that the Food and Drug Act does not prescribe the quantity of lithium that a water should contain to entitle it to the name "lithia water." But that this is not a fatal objection to the law has been frequently held.

Shawnee Milling Co. v. Temple, 179 Fed. 517.

United States v. Sacks of Flour, 180 Fed. 518.

And, even if a standard were fixed as to the quantity which would entitle a water to such designation, it is reasonable to suppose that it would require at least a weighable or appreciable amount in a potable quantity of water.

It is also argued that no natural water, designated as lithia water, contains sufficient lithium to give a therapeutic effect by drinking a reasonable quantity. The evidence is not quite clear on this question; but the most it would prove would be the misbranding of other so-called lithia waters.

It is therefore concluded that the statement "Buffalo Lithia Water," on the labels on the bottles seized, is false and misleading within the meaning of the first general paragraph of Section 8 of the Food and Drugs Act, and judgment will be accordingly entered for the libellant.

Protects Distinctive Name

DECISION IN FRUIT

PUDDINE CASE

District of Massachusetts, the following opinion was rendered January 17, by Judge Morton, in the case of United States, by information, vs. 150 Cases of Fruit Puddine. January 17, 1914.

This is a proceeding, under the Food and Drugs Act, by information (or libel) against 150 cases of a food product called "Puddine" or "Fruit Puddine." A jury having been waived by both parties, the case was tried before me upon fact and law. I find the material facts, in addition to those alleged in the information and admitted in the answer, to be as follows:

"Puddine" or "Fruit Puddine" is the distinctive name adopted and used as early as 1889 of a proprietary food product consisting largely of cornstarch. It is manufactured by the claimant and is put up in packages or cartons of different flavors, adapted to the retail trade. It does not contain any deleterious or poisonous ingredients. It is not an imitation of, or offered for sale under the distinctive name of, any other article; and the name "Puddine" or "Fruit Puddine" is accompanied, on the same label or carton, with a true statement of the place where it has been manufactured.

The alleged misbrandings lie in the words "Cream Vanilla," "Rose Vanilla" and "Fruit Flavored," which appear upon the cartons. "Cream Vanilla" and "Rose Vanilla" are two of the many flavors in which Puddine is manufactured. All the cartons in question appear to have been marked "Fruit Flavored Puddine," to which is added on some cartons "Cream Vanilla," and on others "Rose Vanilla," according to the flavor of the Puddine therein.

The plaintiff contends that branding any article of food with the word "Vanilla," alone or in combination with other words, is a representation that it is flavored with vegetable extract of vanilla made from the vanilla bean; that the word "Cream" prefixed to the word "Vanilla" means the best or highest grade of vanilla; that the words "Cream Vanilla" on the claimant's cartons mean "Flavored with the highest grade of vegetable extract of vanilla;" that the word "Rose" prefixed to the word "Vanilla" means a combination of the vegetable flavors of rose and vanilla; that the words "Rose Vanilla" on the claimant's cartons mean "Flavored with the vegetable extracts of Rose and Vanilla;" and that the words "Fruit Flavored" mean flavored with fruits (commonly so-called), capable of being used as flavoring substances.

The contention of the claimants, who are the manufacturers of the product, is that "Puddine" and "Fruit Puddine" are artificial words, adopted as the name of their product, and constitute a distinctive name for the article within Section 8, Subsection 4 (1), of the Act in question; that "Cream Vanilla" and "Rose Vanilla" are also artificial words, adopted by them to indicate the taste and appearance of their product, and import nothing as to the origin of the taste; that they are not false or misleading and that the term "Fruit" or "Fruit Flavored," while adopted as an arbitrary or artificial part of the name, is in fact true, because the grain out of which the product is manufactured is,—botanically speaking—a fruit.

The words in question are to be construed in their ordinary or customary meaning, so far as they have one. *U. S. v. Seventy-five Boxes of Pepper*, 198 F. R. 934; *U. S. v. Thirty Cases of Grenadine*, 199 F. R. 932; *Brina v. U. S.*, 105 C. C. A. 558.

The distinctive or trade name of the product is "Puddine" or "Fruit Puddine," always accompanied on the cartons by words indicating the flavor. "Puddine" and "Fruit Puddine" are frequently used without the adjective "Fruit Flavored," which is not part of the name. It seems clear that "Fruit Flavored" does signify, as the plaintiff contends, that the article is flavored with "fruit" in the common, not the botanical meaning of the word. As no such fruit is used in "Puddine," the words "Fruit Flavored" are untrue and misleading as applied to it; and the misleading effect of them is heightened by the picture of a dish of fruit which appears on some of the cartons. If Puddine were not an article of food known under its own distinctive name, it would clearly be "misbranded" within the Act, by reason of the words "Fruit Flavored" upon the cartons.

The claimant contends, however, that articles of food which come within the terms of the proviso to the fourth subsection of Section 8, are exempt from the operation of the Food and Drugs Act, and are not to be deemed misbranded, no matter what misstatements are made upon the cartons. The plaintiff contends (1) that the first paragraph of Section 8 prohibits all misbranding as therein defined, and is not limited by the proviso in question; and (2) that even if the proviso does apply, it is not the intent of it to except from the operation of the Act anything except the distinctive name itself; that even if, as to articles of food which come within the proviso, misstatements which form part of the name itself are not forbidden, it is nevertheless true that any other false or misleading statement regarding the ingredients or substances contained in such articles, constitute misbranding.

It has been said that the sole purpose of this statute "was (1) to protect purchasers from injurious deceits by the sale of inferior for superior articles; and (2) to protect the health of the people by preventing the sale of normally wholesome articles to which have been added substances poisonous or detrimental to health." *Sanborn, J., Hall-Baker Co. v. U. S.*, 198 F. R. 614, at 616 (C. C. A. 8th Circuit). In other words deception and unwholesomeness are the evils which the Act is designed to prevent. The last part of Section 8, providing that "manufacturers of proprietary foods which contain no unwholesome added ingredients" shall not be required "to disclose their trade formulas, except in so far as the provisions of this Act may require to secure freedom from adulteration or misbranding," plainly implies that a proprietary product may be misbranded. The report of the committee (House of Representatives, 59th Congress, First Session, Report No. 2118, March 7, 1906), and the debates, so far as they refer to the proviso in question, indicate that the attention of Congress was directed to protecting thereby established distinctive or trade-names from being outlawed by the Act.

In *U. S. v. Forty Barrels of Cocoa Cola*, 191 F. R. 431, 440, it was held that the proviso in question "was only intended to protect an article sold under its distinctive name from the charge of misbranding in so far as any statement or suggestion contained in the name itself is concerned." See too *U. S. v. American Chicle Co.*, U. S. District Court, District of Oregon.

It is undoubtedly true that persons purchasing a proprietary article of food, like Puddine, get what they go for, whether all the statements on the carton are correct or not. But it is also true that the purchase of a proprietary article may well be induced by false statements concerning it upon the cartons; and it is not difficult to imagine cases in which reliance on such misstatements would work real injury to the purchaser. For example, if such an article were branded "Contains no Sugar" when in fact it did, the misbranding

might induce the purchase by persons whose diet demanded the absence of sugar. Such articles are within the purview of the statute. It does not seem to me that the proviso in question was intended to exempt them absolutely from the provisions of the Act, and to leave the manufacturers free to make misrepresentations concerning them. Such a construction is out of harmony with all the rest of the statute, and disregards one of the principal purposes of it. It seems to me that the protection afforded by the proviso is limited to the distinctive name; and as so limited, I have no doubt that the proviso applies to the first paragraph of Section 8, and fully protects distinctive names from being misbranded.

I therefore find and rule that the words "Fruit Flavored" upon the cartons containing Puddine were a statement regarding such article, or the ingredients or substances contained therein, which was false or misleading and constituted misbranding within the statute.

The conclusion above reached makes it unnecessary to consider whether the use of the words "Cream Vanilla" and "Rose Vanilla" constitutes misbranding; but I infer from what was said at the argument that this is a point upon which a decision is particularly desired by the parties. I therefore proceed to find the facts and state my conclusions in reference thereto.

The legislative history of this Act is as follows: The bill which, after amendment, became the Food and Drugs Act of June 30, 1906, was Senate Bill No. 88, 59th Congress, first session. It is printed in full in the Congressional Record for that session at page 897. It was reported favorably to the Senate December 14, 1905, (Senate Reports, Vol. 1, No. 8, 59th Congress, first session), passed by the Senate February 21, 1906 (Cong. Rec., 59th Congress, first session, p. 2773), and was introduced in the House of Representatives the next day (p. 2853) and there referred to the Committee on Interstate and Foreign Commerce. The committee's report is found in House Reports, 59th Congress, first session, Vol. 1, Report No. 2118. The committee of the House recommended amendment to the Senate bill by substituting for it the Hepburn Pure Food Bill (H. R. 4527, reported to the House January 18, 1904, and passed by the House) as amended by the committee. The bill was passed by the House with amendments June 23, 1906 (Rec. p. 9076, 9353) and sent back to the Senate, which refused to concur. Conference committees filed identical reports June 27, 1906, setting out in full the bill as agreed upon and recommending that it pass (House Reports, Vol. 3, No. 5056; Senate Docs. Vol. 8, Doc. 521; Cong. Rec., pp. 9353, 9379, 9381). The second conference report making certain minor improvements in Sections 1 and 2 of the bill, was filed June 29, 1906, giving the bill as finally enacted (House Reports, Vol. 3, No. 5096). The bill was then passed and signed June 30, 1906.

As to the distinctive name proviso:

The subject matter of this proviso appeared in the original Senate bill, and the proviso as finally passed first appears in substance in the bill as amended by the House committee, where it is numbered Paragraph 4, of Section 7. There appears to have been no discussion at all of the "Distinctive Name" proviso in the debates in the Senate, and the only allusion to it in the debates in the House is found under date of June 23, 1906 (Cong. Rec., 59th Congress, first session, p. 9068).

No such extract, flavoring matter, or combination as "Rose Vanilla" is known to the trade or to the public except in connection with the defendant's product; nor any such extract or flavoring matter as "Cream Vanilla," except perhaps to a limited extent in the bottling trade, in which it is sometimes used to signify a high-grade vanilla extract; but such use is not known to the public generally, and is wholly unrelated to the use by the claimant. "Cream Vanilla," as applied to the claimant's product, is certainly not understood by the public as meaning "flavored with a high-grade vanilla extract." The word "Rose" followed by "Vanilla" was registered by the claimant in the U. S. Patent Office as a trade mark applicable to "Puddine" on the 21st day of May, 1889. Both "Rose Vanilla" and "Cream Vanilla" were in use by the claimant on Puddine before the Food and Drugs Act went into effect.

Puddine is not flavored with the vegetable extract of vanilla, but with vanillin, or synthetic vanilla, which is obtained from oil of cloves. Natural vanillin is found in the vanilla bean and forms the characteristic and most important element in the vegetable extract of vanilla. It is what gives to vanilla extract its characteristic taste. Synthetic vanillin is one of the comparatively recent discoveries in organic chemistry, of which indigo and madder are other examples. It is exactly the same as natural vanillin. The flavor produced by synthetic vanillin is as wholesome as that produced by the vegetable

extract of vanilla, and is substantially identical with it in taste, the difference, if any, being due to accidental substances in the natural extract. As used by the claimant, "Cream Vanilla" is applied to cream-colored Puddine flavored with vanillin, and "Rose Vanilla" to exactly the same thing colored pink with a harmless dye, the difference being in color only.

When a proprietary product is sold in different flavors, I see no reason why there may not be a distinctive name of a particular flavor, nor any reason for denying to such a name the protection of the proviso. The very purpose of the proviso, as I construe it, was to save distinctive names, which might be of great value, and the use of which might otherwise have been forbidden. "The purpose of the law is the ever insistent consideration in its interpretation," McKenna, J., *U. S. v. Antikamnia Chem. Co.* (U. S. Sup. Court, 5th January, 1914). I find and rule that "Cream Vanilla" and "Rose Vanilla" as used with "Puddine" are artificial and distinctive names adopted by the claimant, the use of which is not misbranding. It is unnecessary to decide whether the word "Vanilla" applied to food amounts, as the plaintiff contends, to a representation that the taste thereof has been produced by the vegetable extract, and not by the synthetic product.—Decree for plaintiff.

OUTLINES WORK ON MILLING AND BAKING TECHNOLOGY.

In a letter to the members of the American Society of Milling and Baking Technology, signed by J. A. LeClerc, secretary, states that the plan of work for the coming year has been formulated, and members of the Society are asked to advise the secretary along which line of work they are willing to co-operate. As soon as the information is received the wheat, flour or baking powder necessary will be sent out, with full instructions on how to carry out the experiments.

The outline of work planned is as follows:

MILLING.

I. Determine amount of water to be added to wheat before milling.

II. (a) Mill wheat on 43% basis.

(b) Mill wheat on basis of weight per bushel, that is if wheat weighs 59 pounds per bushel, mill to obtain 39 pounds of flour, from 100 pounds of wheat.

(c) Mill on basis of 1.1 times weight per bushel, that is, if wheat weighs 60 pounds per bushel, mill to obtain 66 pounds (60x1.1) of flour per 100 pounds of wheat.

Determine water, ash, nitrogen and gluten in a, b, c.

Bake a, b, c, according to your own method, using the same method for a, b, c.

BAKING.

I. (a) Bake according to method prescribed by Committee.

(b) Bake according to requirements of flour.

(c) Bake with 3 different yeasts.

(d) Compare (1) mixing yeast and water and then salt and sugar in dilute forms, (2) mix yeast, salt and sugar dry to uniform mass and then add water.

II. (a) Determine length of time of mixing (1) mix one minute, (2) mix until dough is in proper shape (note time).

(b) Determine relation between expansion test and loaf volume.

BAKING POWDER.

I. (a) Determine amount of baking powder necessary to make standard biscuit, (1) with soft wheat flour; (2) hard wheat flour.

(b) Effect of consistency of dough on volume of biscuit, (1) stiff; (2) slack.

ANALYTICAL METHODS.

I. (a) Determine relation between water soluble nitrogen and quality of flour.

(b) Standardize method of washing gluten

L. F. Brown, secretary of the American Feed Manufacturers' Association, announces that the executive committee of the association have set the date for the annual meeting for Chicago, May 22 and 23, at the Auditorium Hotel. The association, which was organized at Chicago in March, 1909, is composed of the most prominent feed manufacturers of the United States, and the deliberations of the annual meeting are important and watched with much interest.

J. J. Roch of Zumbrota, Minn., has been appointed a state cheese inspector in the Dairy and Food Department. He is an experienced cheese maker and has won numerous prizes. Edwin Hed of Mankato, formerly a creamery inspector, has again been appointed to the same position, and temporarily assigned to the Red River Valley territory.

RECENT FOOD LAW DECISIONS.

CANNOT COLLECT FOR MISBRANDED FOOD.

(Federal) A statute requiring fish packed in casks for export or domestic sale to be inspected and branded, and providing that every person who offers for sale in, or attempts to export from the state, any pickled fish not approved by a sworn packer, or in casks not branded or specified, shall forfeit \$50 for each offense, prevents the seller of fish from recovering the price when the statute has not been complied with.—*Church v. Proctor*, 33 U. S. A. 1.

TRADE MARK CASE.

(Federal) The complainant, an Ohio Milling Corporation, since 1872 has used the name "Tea Rose" as a common law trade mark for one of its brands of flour, but has never sold such brand in the territory southeast of the Ohio river comprising the states of Georgia, Florida, Alabama and Mississippi, although it has recently made some effort to establish a trade there in other brands. The defendant, without knowledge of its prior use by complainant, since 1893 has used the name "Tea Rose" for one of its own brands of flour in which it has built up an extensive trade in the states named, where the name has come to mean the defendant's flour and no other kind. Held, that the complainant was not entitled to an injunction to restrain the defendant from using the name in such territory. Since it is the trade and not the mark that is to be protected, a trade mark acknowledges no territorial boundaries of municipalities or states or nations, but extends to every market where the trader's goods have become known and identified by the use of the mark; but the mark itself cannot travel to markets where there is no article to wear the badge and no trader to offer the article.—*Hanover Star Milling Co. v. Allen & Wheeler Co.*

NET WEIGHT ORDINANCE VALID.

(Washington) An ordinance of the City of Seattle requiring the true net weight or measure of commodities sold in containers to be stamped or printed on the container, has just been held by the Supreme Court of that state to be a valid exercise of the police power of the city, and not unreasonable as applied to foods which lose weight by evaporation. In passing upon the requirements of the ordinance, the court said: "The next contention of respondent goes to the reasonableness of the ordinance in failing to make allowances for the loss of weight by evaporation, stating in support of his theory that California salt packed in sacks, and raisins packed in cartons, the two commodities embraced in the complaint, will lose weight by evaporation, and that the true weight if stated on the container at the time of packing would not be the true weight at the time of delivery to consumer, and hence the dealer would be liable for a violation of the Federal act requiring that, if the weight be stamped on the package, it must be the true weight. This would mean, assuming respondent's contention as to loss of weight by evaporation to be true, that the loss must fall on the consumer. It does not appear to us that a law is unreasonable because compliance with its requirements shifts this loss to the original packer or manufacturer. It is not unreasonable to require that the packer or manufacturer shall ascertain this loss by evaporation as he is best in position to do, and overcome the loss by increasing the size of the package, or the weight of the commodity packed therein, or withhold his goods from the market until it is possible to ascertain the true net weight. Whatever may be the necessary course to adopt to enable the container to correctly indicate the weight of the commodity it contains, it is not unreasonable to place that burden upon the one who puts the article before the public as a sale commodity, and compel him, if he wishes to retain his trade, to so pack his commodities that the consumer may know the true quantity of the thing he buys, and thus protect himself in paying the value of the thing he buys. At all events we apprehend that there will be little likelihood of the honest merchant subjecting himself to a penalty under this ordinance if he is able to show that, in an honest endeavor to comply therewith, the nature of the article is such that an absolute compliance with its terms is impossible. The power of the city to pass the ordinance being sustained, it will be a simple matter to so amend it, if found to be necessary, as to conform to all natural and uncontrollable conditions."—*City of Seattle v. Goldsmith*.

The way to tell mushrooms from toadstools is to wait until next morning. If you are here, they were mushrooms; if you are in heaven, they were toadstools.

BUSY IN NEBRASKA.

"The Pure Food Law and its Enforcement" was one of the chief topics at a recent meeting of the Woman's club at Lincoln, Neb. This was in an address by E. C. Kemble, from the State Food Commissioner's office at Lincoln.

Mr. Kemble is one of about sixteen inspectors sent out over the state by Commissioner Harmon, the state being divided into districts.

In speaking of unsanitary conditions in the preparation, handling and sale of foods he began with the milk supply, passing on to the bakeries and the canning establishments. His manner of dealing with these subjects was intensely interesting, his descriptions clear and concise and with his answers to questions he gave a great fund of very useful information.

At a late date he is to illustrate these topics with stereopticon slides. He had with him several samples of canned goods, extracts, etc., and explained the work being done by the state in securing proper weights and measures, etc.

Club women and all others interested are urged to send for any information on the pure food laws they may wish. The state commissioner and his force will be only too glad to furnish pamphlets, etc., and they are all free of charge.

Mrs. Wolbach read a paper on "Nature's Demand for Rest."

MISSISSIPPI OYSTER PROBLEM.

The battle ground of the fight between the State Board of Health and the Mississippi Oyster Commission over the taking of oysters from gulf coast waters within a mile of where sewers open into the sound, has been transferred from the gulf coast to Jackson and will be fought out in the legislature. It promises to become one of the bitterest controversies of the session.

The State Health Board has issued a peremptory order forbidding the taking of oysters from waters within one mile of a sewer and insists that the oyster commission must enforce this edict.

The oyster commission replies that the health board must first have the sewers removed, that the enforcement of the order in its present form would put all the small oyster fisherman out of business.

The health board will ask the legislature for a more stringent statute applicable to the subject and until that is secured will stand pat on its order.

It is said that if the order is enforced in its present form it will compel several hundred persons at Biloxi, which is entirely surrounded by oyster reefs, to quit business.

KANSAS LOSES A GOOD MAN.

Mr. Floyd Tilford, Assistant Chief Food and Drug Inspector of the Kansas State Board of Health, has resigned his position to engage in the drug business in Wichita, Kansas, the name of the new firm being The Dockum and Tilford Drug Company.

The services of Mr. Tilford as state drug inspector were conspicuous for the thoroughness of his work, and when finally opportunity was presented, he was advanced to the position of assistant chief food and drug inspector.

Mr. Tilford's many friends join with the state department of health in their regret to lose him and his splendid services in board of health work, but wish him abundant prosperity in his new business venture.

MINNESOTA FOR BETTER MILK.

Plans for more effective supervision and inspection of city dairies were discussed at a meeting of the inspectors in the state dairy and food department assigned to the larger municipalities at a conference in the office of Commissioner Joel G. Winkjer of Minnesota. Those present were M. J. Smisek, Minneapolis; Henry Shields, St. Paul; J. T. McCarthy, West Concord; Oscar Hallquist, Red Wing; Thomas Manley, Duluth and Northern Minnesota.

During 1913 the inspectors made it a point to co-operate in every way possible with the local boards of health and this tended to improve conditions. The Federal government score cards for dairies have been adopted and the dairymen have shown much interest in the work.

MICHIGAN BELOW STANDARD.

That Michigan is far below the standard established ten years ago was the declaration of State Dairy and Food Commissioner J. W. Helme at the session of the Michigan State

Dairymen's Association. "Poor cream is the cause of the drop in quality," he said. "If the dairymen would get busy and put out a better brand of cream, which they could do if they took proper care of their stock, this state would lead all others in the quality of its butter."

UNIFORMITY AND EFFICIENCY COMMISSION.

Dr. Carl L. Alberg, chief of the bureau of chemistry, and Samuel Gompers, president of the American Federation of Labor, are among the members of the commission named by President Seth Low, of the National Civic Federation, to work for uniformity and efficiency in food and drug control laws. Vincent Astor is chairman of the commission.

Present inefficiency in such control is the motive of the action by Mr. Low. Voicing protest against matters as they now are, James H. Wallis, president of the National Association of State Food and Dairy Commissioners and one of Mr. Low's appointees, makes a vigorous indictment of conditions.

Mr. Wallis says:

"Food and drug control work in the United States is not 50 per cent efficient. This is startling, but it is true. Where is the trouble? How is it possible with a mass of food and drug legislation, with zealous, competent, and honest officials attempting to enforce the laws, with generous appropriations, with public opinion strongly behind the work, and with a friendly press and helpful judges, that there is not greater efficiency?"

"The answer is found in defective organization and utter lack of correlation of several branches of what really is but one subject. The trouble has its root in the laws of the Federal government and in the laws of the States. We must secure basic changes in these national and State laws."

The other members of the commission are: Dr. S. S. Goldwater, commissioner of health, New York; Miss Maude Wetmore, daughter of the former senator, and chairman woman's department, National Civic Federation; Mrs. S. R. Crockett, Nashville, Tenn.; John M. Stahl, Farmers' National Congress, Chicago; Dr. E. K. Dunham, chairman New York milk commission, and Edward N. Breitung, Marquette, Mich.

NEW APPOINTMENTS.

John A. Roberts, Commission of Agriculture, Augusta, Me., who has had charge of the enforcement of the state food law, beginning Jan. 1, has been made Commissioned State Official of the Department of Agriculture in Maine, succeeding Dr. Chas. D. Wood.

Dr. A. R. Stover of the Medical Department of the University of Arkansas, at Little Rock, has been appointed Collaborating Chemist of the Department of Agriculture in Arkansas, succeeding Dr. C. H. Hoffman.

Dr. Morgan Smith, State Health Officer of Little Rock, Ark., has been made Commissioned State Official of the Department of Agriculture in Arkansas, succeeding Dr. J. P. Runyon.

Mr. Philip H. Smith of the Department of Agriculture Experiment Station at Amherst, Mass., has been commissioned by the department to collect samples of feeds and feeding stuffs under the food and drugs act.

Mexomoka Coffee, shipped by Hills Bros. of San Francisco, was seized at Sand Point, Idaho, December 5; 75 packages were seized, it being charged that the product was both adulterated and misbranded. "Mexomoka" would seem to imply a mixture of Mexican and Mocha coffees, when the product bearing the name is actually a mixture of Santos and Mexican coffee. These cases have not as yet been passed upon by the courts.

The O. J. Weeks Company has been incorporated in New York to succeed O. J. Weeks & Company, manufacturers of specialties for bakers, confectioners and ice cream makers. Oscar J. Weeks is president, J. C. Weider treasurer and C. G. Tacke secretary. Mr. Weeks will remain in active charge of the business as heretofore.

The food product exhibit at the Panama Pacific International Exposition will be broader in its scope than anything of the kind ever shown at a previous international exposition and will present the more modern advances of science in the direction of pure foods. The exhibits will include all kinds of vegetables and animal food, together with an extensive display of appliances for gathering crops and for repairing various kinds of edibles.

WASHINGTON STATE RULES ON COFFEE.

All articles for food and drink prepared for public consumption are embraced under the regulation of the food laws, and all dealers are advised to inform themselves of the law's requirements.

Coffee compounds and coffee substitutes can be and are sold cheaper than pure coffee. This being true there is no good reason why people who desire the cheaper product because of the price or other reasons should be denied the privilege of buying and using them. On the other hand, patrons who want the pure article should not be imposed on by a substitute.

As a protection against any imposition of this kind this department has ruled as follows:

Coffee if sold as such must be true to name. It may be mixed with chicory or other substances not injurious to health if plainly marked so as to indicate it is served as a compound or substitute.

Proprietors, managers and others in charge of hotels, restaurants, boarding houses, lunch rooms, cafes, and all places where food or drinks are served or sold for gain, shall if they serve coffee compounds, coffee substitutes, coffee and chicory, or any imitation coffee, conspicuously display in the center of the room or on the sidewalls in a prominent position where it can be easily read by patrons, a white placard on which is printed in English in black ink in plain Roman type, not less than one inch in length, the words, "Compound Coffee Served Here"; "Imitation Coffee Served Here"; "Coffee and Chicory Served Here," as the case may be, or a combination of one or more of the above descriptions if necessary to include the service rendered.

Where regular menus or bills of fare are in service, and are presented to each person, the legend or legends above required may be displayed thereon, in conspicuous type instead of by placard. It should be distinctly understood that wherever the word "coffee" is used in service, without a qualifying term, pure coffee must be served.

This ruling takes effect immediately.

J. J. HIGGINS,

Asst. Com'r Foods, Feeds, Fertilizers, Drugs, Oils & Bakery Inspection.

TEXAS AND FEDERAL OFFICIALS CO-OPERATE.

As a result of the recent conference in Washington, D. C., between state food officials and representatives of the U. S. Department of Agriculture to promote co-operation in food and drug work, an important seizure of damaged foods has recently been made in Fort Worth, Texas, through the joint activity of Dr. J. S. Abbot, Food Commissioner of Texas, U. S. Attorney Wilson, and the Federal food inspectors in Texas.

It appears that in the latter part of December a large quantity of sirup, vinegar, raisins, candy, flour and other products from a fire in Oklahoma were shipped to Fort Worth for sale. Dr. Abbot obtained information of the shipment, and at about the same time the New Orleans, La., food laboratory was notified by long distance 'phone of this shipment, consisting of some 15 cars. Dr. Abbot and the state chemists of Fort Worth took samples at once and other samples were taken by the Federal inspector. Upon information received from Dr. Abbot the U. S. attorney filed a libel under which the following goods were seized subject to determination by the courts as to whether the seizure was warranted:

Two carloads of unlabeled sirups which were offered for sale as ribbon cane sirup when in fact they were not ribbon cane sirup.

Two hundred bottles of vinegar, unlabeled, alleged to be compounds of distilled and sugar vinegar and offered for sale as vinegar.

Forty pounds of raisins.

Forty pounds of chocolate.

Forty pails of candy.

Two hundred sacks of flour.

Alleged to be filthy and decomposed.

"Now, gentlemen of the jury, the evidence of the defendant here is that this has to be put in here heated, and that it necessarily shrinks some. I instruct you that this is no defense. If they represent on the case, as they did in this case, that two dozen purity quarts are contained therein, it means quarts of a gallon—they represent by that label that there was in each of these cans a full quart, and that means at the time, of course, that it was shipped; and if it has to be put in hot, and after that shrinks, then the defendant ought to put in enough so there would still be a quart."

NEW JERSEY PACKERS OPPOSE DATE LAW.

Packers and canners of New Jersey are urging members of the legislature, particularly those from Camden, to aid in defeating a measure introduced in the lower house by Assemblyman Nutting "to regulate and control the sale of canned or packed food products in the state."

The pending measure makes it unlawful for any person, firm or corporation to sell, or offer for sale, any meat, fish, vegetable, fruit, food or food product preserved in tin or metal cans or any form of packages of air-tight construction, unless stamped plainly with the month and year of its packing.

The act also makes it unlawful to sell or offer for sale food packed in glass, unless it bears a label giving its packing date.

The penalty for violation is a fine of \$1000 or imprisonment not to exceed one year.

The packers and canners argue that if such a law was placed on the statute book it would make it difficult or impossible for them to compete with goods manufactured in other states.

The packers and canners also assert that farm products, such as are packed in tin in the state of New Jersey, cost the packer 10 per cent more than they do in Maryland and the middle western states.

The section of the bill which provides that food products packed in glass shall bear a date plainly printed on the label is held to be discriminatory, as goods packed in glass and shipped out of the state could be relabeled with the permission of the Federal government, the new labels bearing no date, whereas the cans could not, as the bill calls for cans to be dated by impress on the metal.

Finally the canners assert that the law could accomplish no good, because products properly canned are not affected at all by the length of time they stay in the can. If such a measure was enacted they hold that it would increase the cost of living, as well as striking an almost fatal blow at the canning interests in New Jersey.

IOWA DAIRY SPECIAL.

Commissioner W. B. Barney of Iowa has been making war on the unsanitary milk conditions of his state by means of his dairy special.

The dairy train carries complete exhibits along all lines, and every one has plenty of time to see all. The dairy cattle carried on the special train are Iowa's best and an illustrated lecture on the selection of cattle, as well as cow demonstration contain information that can be applied directly on the farm.

There are many things of interest in dairying as well as other lines of farming that are taken up by the speakers on the special dairy train. All lecturers are men who have had practical experience on Iowa farms. They tell in a clear, concise manner how improvements can be made on the average farm. The question of soil fertility will itself repay every farmer in the community to attend the meeting. The breeding and feeding of dairy cows; the value of dairy products as human food; the growing of alfalfa hay and its value on the farm; the advantage of the silo, and the selection of good cows are subjects which will be discussed in the court house. A lecture to high school students is also on the program.

The speakers who are assigned to accompany the train are Judge W. B. Quarton, a dairyman of Algona, Iowa; G. H. Tellier, assistant dairy commissioner; W. B. Barney, state dairy commissioner; J. I. Gibson, state veterinarian; B. C. Iliff, deputy state dairy commissioner; E. S. Estel, Iowa state dairy expert; A. H. Hansen, assistant state dairy expert; J. B. Lamson, farm crops expert; H. A. Welch of the United States government.

The purpose of the journey through the state is to educate the people up to the necessity of producing more food of improved quality, more especially dairy products.

DR. LADD REVIEWS HIS WORK.

In his tenth annual report to Governor John Burke, Food Commissioner Ladd of North Dakota has made a most interesting and exhaustive report. The commissioner in his review of the work done by the department shows that the scope of the department's labors has been broadened and made more thorough. The feature work has been dwelt upon at length and much of the matter referred to has been presented in concrete form by the use of tables. Altogether the report presents a creditable showing of the department's activities.

Illinois Correspondence

(From our Staff Correspondent.)

CHICAGO, February 28.—Commissioner W. Scott Matthews of the Illinois Food Commission, is starting out with an educational campaign of some magnitude. It is the commissioner's policy to carry to the consumers of food such information as will enable them to best avail themselves of the benefits made possible by the food and sanitary laws.

The commissioner has but twelve inspectors for the enforcement of the food and sanitary laws in a state having over six million population or one inspector to every five hundred thousand people. Realizing that this force is entirely inadequate, yet wishing every consumer in the state to have the maximum information at a minimum expense, he has thus arranged this educational campaign for their benefit.

The commission made a trip to Washington and explained to those in charge there his ideas on the matter and asked them to co-operate with him in a practical and substantial manner, which they agreed to do. They have sent on to Commissioner Matthews and tendered him for use in this educational work the services of Dr. Samuel Ross, formerly chief of the Government Food Laboratory of Omaha, and Professor John Kelly, in charge of the Market and Milk branch of the Dairy Division, Washington, D. C. Commissioner Matthews also engaged the services of Dr. John Owens and Mr. George Simcox. They have with them one of the latest style Edison motion picture machines with films and a stereopticon machine with slides and a competent electrician to operate the machines. It is the commissioner's idea that this party should go into a community for the greater part of a week, one member visiting and lecturing to the pupils and teachers of the schools, both public and private, without regard to creed or color, that they should lecture to the women's clubs, civic organizations and commercial associations, all of whom are invited after the lecture to come over to the main hall, see and have explained to them, the exhibit; see and hear the illustrated lectures and to ask questions. During the visit the dairies will be inspected and samples of municipal milk supply collected, examined and reports made upon the same and a general sanitary survey of the community will be made and reported to the proper authorities. It is the desire not only to show the consumer how the food law protects them but what they should do after they get such knowledge to help themselves. Also to arouse enthusiasm so that each community will see the need of protecting themselves. The department takes up the matter with the city commissioners or the mayor and aldermen or the village board, as the case may be, to help them to draw up proper ordinances towards the better production, distribution and handling in general of the local food supply and such ordinances that would be necessary for more city, such as elimination of out-houses, cleaning of back yards and alleys, protection of the city's water supply, proper disposition of city garbage and sewerage, etc.

The commissioner started the campaign off at Kankakee; they next visited Carbondale and Anna. It is needless to say that the people appreciate this work. It has turned out large and enthusiastic crowds. So far the commissioner has been in personal charge of the work. He has applications from many cities asking for a campaign in their city. In fact, the chitauqua associations are already writing him to see if he cannot carry this work to the consumer through their meetings.

This is all free to a community with the exception of the rent of the hall and the charge for electric current for the operation of the machine. The state is furnishing the lecturers and caring for the rest of the expense, with the exception of Dr. Ross and Professor Kelly, whose entire expenses are paid by the government. Assistant Commissioner Newman is continuing to address whenever time will permit, different trade associations at their gatherings and women's clubs at their local meetings. It is Commissioner Matthews' hope that all the consumers of this state may be permitted to hear and see these illustrated lectures and have the exhibit displayed to them. Clubs or municipalities that are interested in securing for their community,

assistance of this kind, should address communications to W. Scott Matthews, State Food Commissioner, Carbondale, Ill.; or Chicago, Ill.

In carrying on this important work, the local papers in the localities that have been given the benefit of the exhibits in this connection have co-operated heartily.

The local newspapers of the smaller communities are probably the best read literature which the people of the community receive into their homes. It is very difficult, for such enterprises as this, to succeed without the help of the editors of these papers. It is but just to say, that in appealing for co-operation in matters of this kind it is only necessary to make the suggestion to the editors of home newspapers as they are always willing and anxious to help forward movements of such manifestly beneficial effects as this educational work cannot fail to be.

The effort to secure pure foods and have them manufactured and distributed in a sanitary way is of the first importances to all and without doubt this new effort on the part of the Illinois Food Commissioner will be received with enthusiasm and other states will watch the results with the intention of doing likewise.

Commissioner W. Scott Matthews, Assistant Commissioner John B. Newman and the entire inspection force met at Springfield, Ill., last week, in conference with Professor Kelly of the Dairy Division in Washington. The Illinois inspection force feeling that the only way to properly score and check up or rescore dairies, milk depots and bottling plant, is to have them sell standardized by some one who had something to do with the drawing up of the government score card, rather than to attempt to standardize themselves. Professor Kelly said from his experience that this was the exact thing to do. That scoring and rescoring was of little value unless it was done by men who had been standardized by those who drew up and knew what the different credits meant. Professor Kelly spent considerable time and visited some plants with the men and within the next thirty days, the men will accompany him on different inspections, scoring and rescoring until they are standardized. The Illinois department desire the co-operation of the National department in all matters and in this way any scoring that is done here in the future will be on the same basis as the National scoring.

GROWTH OF AN INDUSTRY.

A few years ago the Moneyweight Scale Company took on some additional space to their present office, which at that time, was calculated to be sufficient for its use for some time to come.

The efficiency of their Computing Scale has made a persistent increase in the demand for them with the result that the Moneyweight Scale Company again finds themselves crowded for space. Additional space was not available in their present location. They have, therefore, leased a large portion of the second floor of the new modern office building at the northeast corner of N. Market and W. Madison Streets. This space will contain about two thousand square feet more than what they are now occupying.

Since the Moneyweight Scale Company established headquarters on State Street, the wholesale grocers and jobbers have been gradually shifting toward the river and taking up this new location. The Moneyweight Scale Company is placing itself in close touch with the district which attracts the trade interested in their scales.

They expect to be located in their new quarters by March first and will be glad to welcome any of their old or prospective customers.

Their mailing address will be known as 326 W. Madison Street, Chicago.

Food analysis while you wait has been established in Paris, France. The housewife who suspects her food products are not what they should be may have them examined at the free municipal laboratories free of charge. Any one who brings a food product can have an examination made at once.

Indiana Correspondence

(From our Staff Correspondent.)

INDIANAPOLIS, February 27.—The intensely cold weather of the past two weeks in Indiana, while it has reacted severely on practically all lines of business activity throughout the state, has been particularly noticeable because of its effect on deliveries of staple foods to the smaller communities of the state and to distant parts of the larger cities of the state.

In Indianapolis there was actual suffering for several days in some portions of the city because of the inability of the ordinary traffic to move according to routine. The heavy snows, which drifted in the streets several feet deep kept auto trucks, wagons and street cars alike from making their usual progress, and the city resorted in great measure to pedestrianism as a mode of travel. It was practically impossible to transfer the staple commodities and there existed a "famine" in many outlying districts, particularly so far as perishable food products were concerned. Such commodities as oysters, meats, bread, milk and the like went begging at the distribution points, while in the outlying districts little or none could be obtained.

The situation was far worse for a day or two in the smaller towns and cities of the state. Practically no inter-urban roads through the state essayed to keep up a normal schedule. The interurbans in Indiana during the past few years have become a great vehicle for the transfer of perishable foodstuffs. With the tracks blocked with snow for miles many communities suffered for the commodities, which had not been stored in any appreciable quantities. A promised let-up in the weather conditions toward the last few days of February was to help the situation locally and throughout the state materially.

The possibilities of buying large quantities of foodstuffs through wholesale channels and under the strictest competitive conditions was well outlined here late in February in a report that came from the Central Hospital for the Insane at Indianapolis, a state institution of which Indiana has bragged for many years because of the efficiency of its management. Dr. George F. Edenharter, superintendent of the institution, in his report, showed conclusively that even with this system of purchasing it was impossible to cut down the gradually increasing prices of food commodities. In a long list of commodities, used by the state institution during two fiscal years, while eleven foods increased as to the unit cost during the fiscal year of 1912-1913 over the previous fiscal year, twenty-one commodities in general use decreased in price, some of them as much as forty per cent. In a similar table, however, prepared to show the increase and decrease in two four-year periods (1909-1911, inclusive and 1911-1913, inclusive) presented material increases in nearly all lines of commodities, for the latter quadrennium over the former.

Beef, pork, hams, eggs, potatoes, meal, beans, hominy, rice, cheese, milk, coffee, tea, sugar and evaporated peaches (all foods which are staple at state institutions) showed heavy increases in cost, running from 1.2 per cent to 35.2 per cent. All of the purchases of these foods were in extremely large amounts.

The average costs for such commodities, also contained in the tables shows some interesting comparisons. During the fiscal year of 1911-1912 beef cost approximately 10 cents a pound; pork loins cost 11 cents a pound; hams cost 13 cents a pound; lard cost 9 cents; butterine 10 cents; eggs 21 cents a dozen; chickens 17 cents a pound; turkeys 22 cents; potatoes a little more than 1 cent a pound; cheese 16 cents and a fraction a pound; beans 4 cents a pound; flour 4 cents a pound; lemons, 4.46 cents a box, etc. During the succeeding fiscal year, however, beef cost 11 cents and a fraction a pound; pork loins cost 14 cents and a fraction; hams cost 16 cents; lard cost 11 cents; butterine cost 11 cents; eggs, 21 cents a dozen; chickens 18 cents a pound; turkeys 24 cents a pound; potatoes about 60 cents a hundred pound; cheese 16 cents a pound; beans 4 cents a pound; flour 4 cents a pound; lemons \$6.60 a box, etc.

Nearly all of the costs per unit show the fractions in each instance. The average costs of each of the commodities for the four year periods show in detail the general increases in foodstuff prices when bought under the strict supervision system of the state institution.

The state board of health's efforts during last month toward upholding the laws of Indiana took various forms, according to a report from the office of H. E. Barnard, state food and drug commissioner. Nine persons were prosecuted by the state board during the month and nearly every case was for a different reason. Fred C. Langfretz, of Logansport, was prosecuted and fined \$20 for misbranding camphor. John Smith of New Albany was prosecuted for selling sweet cider containing benzoate of soda. E. H. Day of Noblesville was fined for selling dirty milk and Dora Kenworthy of Seymour was fined for selling adulterated butter. Frank Woznick and Leo Orzechowski of Indiana Harbor were fined for conducting stores in unsanitary condition, and James Marrelli, of the same city, was fined for selling unprotected foodstuffs. Miss M. E. Phelan, Indianapolis, was fined for false advertising, and Ben Freiberg, Indianapolis, was fined for selling grape juice containing sulphites. The total fines and costs amounted to \$217.40.

There were seventy-two condemnations of food handling establishments in the state during the month, sixty-five of them because of unsanitary conditions and sixty-three of them being improperly constructed. Twenty-six restaurants, thirteen groceries, eleven groceries and meat markets, nine hotels, five meat markets, four bakeries, two confectioneries, one drug store and one saloon made up the list.

A total of 1,253 inspections were made of food handling establishments during the month. Eleven places were found "excellent," 587 were "good," 551 were "fair," eighty-four were "poor" and twenty were "bad." Fifty-one of the samples of food analyzed at the state laboratories were illegal. A total of 174 were analyzed. Fifteen specimens weinerwurst were found illegal. Two samples of camphor analyzed were found illegal. An analysis of a sample of snuff showed that it was illegal in character.

J. R. Dunwoody of Indianapolis has been appointed city chemist by the city board of health here to succeed Jack Hinman, who resigned to become assistant director of the epidemiological laboratories of the University of Iowa.

Herman F. Adam, a member of the last house of representatives in Indiana, has been appointed city inspector of weights and measures to succeed the renowned Isidor Wulfson, who, for years, fought the battles of Indianapolis housewives.

Adam already has done away with the space formerly arranged by Wulfson to show the public crooked scales, short measures and similar methods of defrauding the buyer. The rooms formerly occupied by the city's food inspection department have now been taken over by the street cleaning department.

It was announced here late this month that Will Irwin, of Columbus, Ind., well-known in the traction world, had purchased a large block of the stock of the Van Camp Packing Company, formerly held by Frank Van Camp of this city. Mr. Irwin's stock, it was announced, although a large share, will not be controlling. Mr. Van Camp retains a large interest in the company still. Irwin recently disposed of his interests in the Indianapolis, Columbus and Southern Traction Company, which were extensive, and since that time he has been an investor. His purchase of the stock in the world-famous food-handling establishment, was made in the nature of an investment. The terms of the purchase or its exact extent were not made public.

State authorities late in the month went on the trail of grocers and druggists in several Indiana towns, particularly Tipton, Ind., where it was found these dealers had been selling "cherry cider" which chemists in the state laboratories found contained from 3 to 7 per cent alcohol. "White grape cider," "Mexican hot" and "Clearo" are other beverages which the state authorities have discovered contain big per cent of alcohol. Samples of several of the beverages which are manufactured at Sandusky, O., were obtained by Frank W. Tucker, a deputy state food and drug commissioner. Notice from the state board of health that prosecutions against those dealers on charges of operating "blind tigers" might be brought were forthcoming from state headquarters.

Missouri Correspondence

(From our Staff Correspondent.)

THREE cases of considerable importance in relation to the food and drug laws were recently decided by the Supreme Court of the State of Missouri. These were the cases of State vs. Maurer, State vs. Surkamp and State vs. Shortell. The defendants in these cases were charged under Section 657 of the Revised Statutes 1909, with selling and offering for sale a substance designed to be used as a substitute for butter, to-wit-oleomargarine, under the name and under the pretense that the same was butter.

The defendants were convicted and fined in the lower court, and appealed. In the St. Louis Court of Appeals, the judgment of the trial court was reversed and the causes remanded, by the majority of the members of the court, the opinion being by Allen, Judge. The information was held defective for failure to charge that the substance sold was made in the semblance of butter or an imitation therefore, which was an essential element of the offense. The writer of the opinion of the court intimated that in order to sustain the information it would be necessary that they should hold as a matter of law that oleomargarine is imitation butter, or an article made in the semblance of butter, and this, even though the oleomargarine be in its natural state, if said artificial coloring or anything else causes it to resemble butter, and adds that both reason and authority were against their so doing. The St. Louis Appellate Court in this opinion followed the ruling of People vs. Aresberg, 103 N. Y. 388, in which that court held that it was not announced as a matter of law that oleomargarine was designed to be used as a substitute for butter, and that was an issue which should be left to the jury.

A dissenting opinion in the three cases above mentioned was filed by Reynolds, Presiding Justice, in which the information and conviction was sustained, and it was held that courts could take judicial notice of the fact that oleomargarine was designed as a substitute for butter. The case was then certified to the Supreme Court of the State of Missouri.

Lent Supreme Court, Div. Number 2, unanimously reversed the majority opinion of the St. Louis Court of Appeals, held the information sufficient, declared that it was only necessary that same should charge the offense in the language of the Statute creating it, holds that judicial notice will be taken of the fact that oleomargarine is designed as a substitute for butter, and in discussing this proposition say—"Oleomargarine is defined by the act of Congress, August 2, 1876, Chapter 240, and in many judicial interpretations of the word, (Braun vs. Coyne, 125 Fed. 331; Comm. v. Van Dyke, 9 Pa. St. 41; Butler v. Chambers, 36 Minn. 69, 29 Cyc. p. 1475), as well as by the meaning given to it by standard lexicographers; as a substance made in the semblance of butter, from all of which the Court will be presumed," as Judge Brown has pithily said in a recent case, "to know what everybody else knows," and judicial cognizance will, therefore, be taken of the fact that oleomargarine is a substance made in the semblance of butter, from which reasoning it follows that the informations were not only drawn in the language of the particular section defining the offense, but state all the constituent elements which should be included therein."

It was also intimated in the same opinion that both in the information and the evidence in cases coming under the food and drug laws, not a little consideration should be given to the purpose of the Act, which is beneficent, and greater latitude should be exercised by the Courts in defining misdemeanors to prevent frauds, and in sustaining informations and indictments based thereon, than on those which have to do with graver offenses and more immediately affect individuals than the general public.

It was also held in these cases that the name of the purchaser was not a necessary allegation in charging the offense, nor was it necessary for the State to prove a guilty knowledge of the article sold, as that was embraced in the offense. It was also held that the owners of food producing or distributing establishments were personally responsible for the acts of their employees or clerks as they would be for their own.

The decisions in these cases will clear the atmosphere of legal technicalities and defenses made in the past, and enable the State authorities to more effectively enforce the food and drug laws.

CHINESE "DEAD SOULS."

Inspector Frank Mautz, of the Food and Drug Department ran up against a snag recently when he visited the premises of the Frederick W. Brockman Commission Company, 835 N. 4th St., St. Louis. Information had been received by Food and Drug Commissioner Fricke that three thousand dozen of eggs had arrived in St. Louis Monday afternoon, after a twenty days voyage from China. The eggs were marked with Chinese characters, and were interpreted by Hall-in-Suck, interpreter for the United State Immigration Department as branded "Dead Souls." Inspector Mautz on visiting the premises requested Frederick W. Brockman, who is the President of the corporation, that he deliver to him three of the eggs, which Brockman said were valued for twenty-five cents each. Mautz tendered him seventy-five cents, the price of the China eggs and demanded that they be delivered to him as a sample, for the purpose of having the same analyzed. Brockman refused to deliver the sample demanded by the inspector and to accept the price tendered to him.

The State law of Missouri provides that any person who shall obstruct the Commissioner or any of his assistants by refusing to allow them entrance to any place in the discharge of their duties that they desire to enter, or refusing to deliver him a sample of food or drugs when requested, shall be guilty of a misdemeanor punishable by a fine of Fifty Dollars. After the refusal, information was made against Brockman by Commissioner Fricke to the Prosecuting Attorney, and a warrant was issued by the latter for the arrest of Brockman. This is the first instance in the history of the administration of the Food and Drug laws in the State of Missouri, where a refusal was made to deliver samples to an inspector, there usually being no difficulty experienced by the inspector in procuring same.

COMMISSIONER FRICKE'S REPORT.

State Food and Drug Commissioner Fricke in his annual report to the Governor, now in the hands of the printer, has made a number of recommendations for additional legislation, and amending laws already in force relative to food and drug matters, adding to the food standards already established a number of new ones, and providing penalties in express terms for their violation. The amendment of the present law making a misbrand in cases where the weight of packages containing food and drugs is stamped on the outside of such package, and requiring that a true statement of the weight or measure should appear on the outside of all packages containing food or drugs, where such packages are sold by weight or measure.

Commissioner Fricke also recommends an alteration of the method provided for the confiscation of articles of food or drugs made or sold in violation of the law, after same have been inspected and analyzed. He recommends the abolition of dual hearings before the Commissioner and Justice of the Peace, and a simplification of the proceedings by giving to the Food and Drug Commissioner, in addition to the plenary powers necessary to determine the correctness of the analysis at hearings, the additional power to confiscate and order the destruction of articles charge to have been made or attempted to be sold in violation of the law.

A recommendation has also been made that time limit should be established for placing foods in cold storage and prescribing that all articles of food preserved by same methods should be branded so as to show the time they were placed in such cold storage and taken therefrom.

An amendment of the present law which empowers the Food and Drug Commissioner to make regulations in conformity with those of the Agricultural Department of the United State by providing penalties for the violation of such regulations has also been made.

Ohio Correspondence

(From our Staff Correspondent.)

COLUMBUS, Ohio, Feb. 27.—Within a very short time the dairy and food department of Ohio will have in the hands of the ice cream manufacturers of the state the new sanitary code that has been in course of preparation for some weeks. The reforms involved were agreed upon between the department and the ice cream men during the latter's recent state convention in Columbus. If some of the features of the code are drastic, the intelligent manufacturer realizes that they will work out for the best interests of the business in placing it in higher esteem with the public and increasing the sale of product. The department is thus assured of support from the better element of the trade, not only in obeying regulations, but in giving assistance to inspectors.

Under this new code factories must be open to the public at all times. The work rooms must be thoroughly clean and free from dust, foul atmosphere and contamination of any kind. They must also be well lighted and free from dark corners where rubbish may accumulate. One square foot of unobstructed glass surface exposed to natural light is required to every ten square feet of floor space. Where basements cannot conform to this standard they shall not be used as work rooms.

Sheds and ramshackle buildings will not answer, as in the past, for ice cream making. It is now stipulated that ceilings and walls of work room must be in perfect repair, so that they can be readily and frequently cleaned. The floors have to be of cement or other nonabsorbent material, and must be sloped to drains connected with sewerage system. Provision is made for the screening of all windows and openings in such manner as will keep work rooms free from flies and vermin at all seasons. The rules governing toilet rooms and their complete separation from apartments in which product is made are very rigid, and go into minute detail.

In case any person sleeps in any building used as an ice cream factory, such sleeping quarters must be separated from work rooms by impervious walls, and without opening into such as horses or cows, under the same roof with factory work rooms. The same rule applies to the keeping of animals.

Particular emphasis is laid on the cleanliness of employees. While at work they shall wear washable clothing and caps. They shall not smoke or chew tobacco while at their duties, and shall not touch the product with their hands at any time. Where cutting, wrapping and moulding of brick ice cream is required extra precautions in cleanliness are required for persons thus engaged.

Much space is given to the care of vehicles and utensils. All wagons, trucks, drays, cans and tubs, platforms and racks shall be so constructed that they can be cleaned with ease and thoroughness. Utensils must be of smooth, non-absorbent material, as tin, or tinned copper, the seams of which are flushed smooth with solder. Suitable means or appliances shall be provided for the proper cleansing or sterilizing of freezers, vats, cans, mixing cans or tanks, piping and all utensils used as containers for ice cream or raw material, and all tools used in making or the direct handling of ice cream, together with other apparatus, shall be thoroughly cleansed and scalded with boiling water or sterilized with steam. The water supply for such purpose must be free from contamination. Vessels used in the manufacture and sale of ice cream shall not be used for any other purpose.

Milk and cream must be stored only in clean receptacles in clean refrigerators. When they have undergone fermentation, gaseous, bitter or otherwise, they shall not be used in the manufacture of ice cream. Flavoring extracts, condiments, syrups, fruits, nuts and other materials used as food must be securely protected from dust, dirt, vermin, flies and other contamination, and must be kept and stored only in clean receptacles. Decomposed, decayed, fermented or rancid food material shall not be used. Receptacles for storage of ice cream must be of the utmost cleanliness. Soft or melted ice cream, or other ice cream, shall not be refrozen under any circumstances.

The code extends to creamery and condensery operators, and all dealers in milk and cream whose product enters into the manufacture of ice cream. Shipment of such raw ma-

terials must be made in receptacles that are absolutely sanitary, and consumers upon receipt of shipment must thoroughly cleanse all such vessels, to the end that they shall not breed bacteria.

It is affirmed by the code that its object is to insure a pure and clean product, made stored and handled under clean conditions, and no technical defect in the construction of any clause shall relieve any person of the obligation of complying with the letter and spirit of the code in its entirety.

The belief is held by Commissioner Strode that the going into effect of the new code will place Ohio in the front rank with respect to protecting the public against impurities from lack of sanitary precautions in this industry. Ice cream is a food product that is now used almost universally, and its consumption is growing at a rapid rate. The activity of the department in surrounding the industry with the best sanitary precautions, and the consistent enforcement of the same which is to follow, form a notable service on behalf of the health of the people. Protection in the matter of adulteration already exists through other laws.

A very important work in which the department is now engaged is that of preparing a code to govern the manufacture of candy. This will be taken up with the State Confectioners' Association, which meets in Columbus in April. As in the case of the ice cream manufacturers, the spirit of the department is that of friendly guidance. Abuses which have been long entrenched, growing out of the ignorance of the manufacturer, and former lack of regulating power by the state, cannot be pulled up by the roots, so to speak, without virtually wrecking individual enterprises. Immediate precautions can be enforced, however, of such nature that they will place the industry on a fair sanitary basis.

One of the difficulties to be met is the compact, crowded quarters in which the candy-making business is carried on. This can be remedied in large degree in the case of present plants, and wholly relieved in the case of new plants to be built in the future. The latter will be required to conform to certain specifications with regard to space and light. The code will be perfected and put into force at as early a date as possible after the state convention. In even a greater degree than ice cream, confectionery goods are of general use, and though less open to contamination, perhaps, in the process of manufacture demand modern sanitary regulation.

It is worthy of note that the Ohio department has just filed its 5,000th case, dating from the time it came into existence 25 years ago. During the last fiscal year there were 347 cases, and since the 15th of November, 1913, the beginning of the new fiscal year, 122 cases have been filed. Present activities in the food line are not marked by anything of a specially distinctive nature. Cases now pending are of general routine nature, consisting of misprinting formulas and of minor infractions of adulteration laws.

The fight against impure vinegar, which was waged vigorously in Ohio a year or more ago, may be said to have been won. The vinegar industry is a very important one in this state, and had been subject to some long-standing abuses in the way of adulteration, making the campaign of the department more or less difficult. The big manufacturers now appear to have accepted the situation in good faith and to have settled down to a law-abiding basis. Some recent milk and oleomargarine cases demonstrate the necessity of eternal vigilance on the part of inspectors.

The most absorbing feature of the department's work during the past four or five months relates to drugs, rather than to food. The State Legislature of 1913 passed what is now widely known as the Duffy law, having for its object restriction of the sale and administering of narcotics. It went into effect in August of the same year. Physicians are usually friends of such measures, but in this case considerable opposition developed among the profession. On the one hand this was caused by a misunderstanding of the purpose of the law, and on the other by the fact that it affected the income of a small element of the fraternity which was not over scrupulous.

Interpretation of the Duffy law by the chief drug inspector showed that physicians were not expected to jeopardize the life of a patient by withholding narcotics as a temporary

urgent expedient. At the same time it was made clear that habitual users could not, under guise of receiving medical treatment, continue to have their cravings satisfied. If there was any obscure meaning in the text of the law with respect to the physicians' rights in administering narcotics, the enactment certainly read clearly in its application to druggists and to traffickers in these harmful goods. The campaign has not been one of education in the way of gently leading violators to the path of rectitude. The menace to society of permitting the sale of narcotics for any but a limited legitimate use makes the case different from that of food adulteration or failure to live up to sanitary laws. Offenders, where caught red-handed, so to speak, whether druggists, traffickers or even so-called reputable physicians, have been prosecuted vigorously.

While prosecutions have been going on in different sections of the state, the city of Toledo, where the "dope" evil was especially flagrant, has been the storm center. Some notable convictions there, involving physicians and druggists, have brought sentences as severe as \$500 fine and 90 days in jail. Violators elsewhere through Ohio have felt the force of the law with equal emphasis. In some instances, but by no means all, the jail sentence has been suspended, with the culprit amenable to prompt enforcement should future conduct not be above reproach.

One of the needs of the department, especially with the additional burden of the Duffy law, is a larger inspection force. The present machinery which divides the state into seven districts, with one inspector to each and a general inspector to co-operate with all, is inadequate to the task. It is conservatively estimated that twenty-five inspectors would be none too many.

A very helpful document has just been issued by the department, with Mr. Harry S. Mesloh, as author, pertaining to the bureau of dairies, of which he is chief. It asks and answers a list of 73 questions in regard to the administration of the milk and dairy laws of Ohio. The whole is in such practical, simple language that no one, after reading it, can plead lack of understanding as to what is expected of him. Within the past week this document, officially known as Bulletin No. 2, has been given a wide circulation, and has aroused great interest among dairymen.

ICE CREAM MEN ADOPT CODE.

The new sanitary code, as written by the State Agricultural Commission, was adopted by the Ohio Association of Ice Cream Manufacturers at Columbus, Ohio., where their convention was held recently.

The code was made by the Commission with the co-operation of the manufacturers, and it calls for some stringent sanitary regulations for makers of ice cream and their factories. Some of its provisions are: "Shops and factories open to public at all times," "all ice cream containers and utensils used in manufacturing must be sterilized," "one square foot of natural lighting space for each square foot of floor space," "all floors to be tiled or cement, sloped to make washing easy," "all workrooms to be screened or some method of excluding flies used," "no person shall sleep in any building," "workers shall wear washable clothes and caps," "no horses or animals of any kind to be kept in factory building," "no person to be employed who is suffering from any transmittable disease."

The convention spent much time in discussing the 25 per cent increase in express rates, affecting ice cream shipments. A movement will be started to obtain some rate for the shipment of cream by freight.

FOR MODEL GROCERY STORES.

(Report submitted by Mrs. Edward Gudeman, chairman educational committee, Chicago Clean Food Club.)

Through its chairman, the Educational Committee of the Chicago Clean Food Club herewith submits its annual report as to the work suggested for that committee for the coming year.

All the efforts of the committee, supported by the club and its individual members, to be on a campaign of publicity, to obtain "model grocery stores."

The scope and character of the campaign cannot be given in detail, and no fixed or even tentative rules and regulations stated at this time.

It will require careful consideration and the co-operation of other civic bodies before working out the plan and giving it practical operation, with the object to then ask municipal ordinances to make same compulsory.

The fundamental idea is to place all grocery stores on a basis of meeting the health and sanitary requirements of our

city, and to have their products meet the requirements of the State and Federal Food Acts, covering all laws and ordinances applying to health, sanitation, foods, weights and measures.

The work at first would be strictly educational, to arouse public and community interest, based on the conclusions that if model grocery stores are asked for by the community they will get them.

Personal likes or dislikes, requirements and suggestions, must be subordinated to a general wide and generous scheme which will bring into lines all vitally interested, the co-operation of the grocers themselves. The requirements at first must be lenient and easy of introduction, a gradual development, which will place no hardship on the grocers and not still further increase the cost of commodities. A very superficial outline of the work is herewith indicated.

1. What is a "model" grocery store? Those that meet the requirements in exposing their goods under proper sanitary conditions. Protecting the commodity against handling by prospective buyers. Protection against flies and vermin. Protection against street dust and animal pollution. Consideration of the conditions of the employes of the store. This would require change of dress. The non-employment of persons suffering from any disease (tuberculosis, throat affections, venereal diseases, or any infectious or transmittable disease). The non-employment of any person having any contagious disease at home.

This would place similar requirements on a grocery store and the vending of its products, as are now required in the protection of the milk supply of the city.

2. The issuing of a certificate to grocery stores, meeting the requirements of this prospective code. Such certificate to be renewed at stated intervals every one to six months. This certificate to be withdrawn or annulled at any time, when requirements are not kept up in accordance with the code. This certificate to be graded, and the grading of the certificate, as well as its issuing, to be based on a score card basis. No grocery store to receive a certificate whose inspection card does not grade 60 points. Three kinds of certificates to be issued, using different colored certificates, representing the relative standing of the store. Below 60 points, no certificate; 60 to 75 points, YELLOW certificate; 75 to 90 points, RED certificate; 90 points or over, BLUE certificate.

There is no doubt that every grocer will strive to have the color representing the highest standing and will prominently display same in his store.

The score card with its certificate would create an honor list, and absence of a certificate would be advertising the lower grade of the store without creating a blacklist.

The work herewith suggested is educational, as it will require proper publicity to educate the public to the value of the colored certificates of honor representing PURITY in its widest sense.

After such a campaign has been successfully carried through, then with the co-operation of the civic bodies it will easily bring forth ordinances making a legal or municipal requirement of what was introduced through community spirit and requirement.

All details as to the scoring of the stores, who is to issue the certificates and other points involved can be worked out through a committee representing the civic bodies interested.

The experimental, practical experience before making the scheme, city, county and state wide, can be obtained in any one smaller locality of our city, a precinct, ward or district.

Your chairman has the personal assurance of a number of grocers that they will heartily co-operate in such a move, especially if they are given full opportunity to meet the requirements of the MODEL GROCERY SCORE card before it is actually put into effect. Thirty to sixty days' notice would be all that would be required to have many progressive grocers meet the requirements of such a score card. There is also no doubt that the city and state officials directly interested in food supplies, their purity and distribution, will assist such move.

Your committee has no score to submit at the present time, nor does it go into consideration what should be on such a score card, except to state that some of the points that would be considered would be size of store, sanitation, ventilation, etc.; consideration of health of employes and their families, handling of goods, inside and outside of store, applying to shelf and bulk goods, vegetables, meats and fish. The scheme suggested could be widened later on to include not alone the retail stores, but wholesalers, restaurants, delicatessen stores and bakeries.

Submitted by the Educational Committee,

MRS. CLARA ASHER GUDEMAN, Chairman.

Pennsylvania Correspondence

(From our Staff Correspondent.)

HARRISBURG, Pa., February 28.—Investigation of the cold storage situation in Pennsylvania will not be undertaken by the joint legislative commission created last year until April and it is probable that the sessions will be held in Philadelphia and Pittsburgh during April, May and June, the early fall being devoted to sessions at which the facts will be reviewed and a report drafted. This is the plan outlined by the members of the commission, practically all of whom have been conducting independent investigations in various parts of the state.

It is the idea to go into the whole situation and then to consider the points at which the act of 1913 is onerous or where it fails to be explicit or to meet conditions. Not so much political capital is being made out of cold storage as was the case a few years ago when every political party had the subject in its platform. The reason is that the people have had a taste of regulation and have also found that the supervision of the business is something which can not be worked out with fairness in a year or even two. So many loopholes have been found in the existing law that the next legislature will be called upon to remedy the conditions. To this end the proposed commission can be of great service and will probably prevent the flooding of the legislature with a raft of bills as was the case last year. Dairy and Food Commissioner James Foust has announced that he will be ready to discuss proposed changes of the law and to hear suggestions as to portions which need clarification. There will undoubtedly be an effort to repeal the whole law but this is not regarded as likely to prevail and the big fight will be on the periods of storage which should be allowed.

The enforcement of the law has brought about much complaint on the periods fixed and it is expected that the reports to be made the latter part of this month for the first quarter of 1914 will show a marked decrease in the amount of butter and eggs in storage. The reports will be called as of March 31 and will furnish an interesting comparison with those of October 1.

People in the canning industry are confronted with a fight to retain the exemption of the female employment law which was inserted in the act of 1913. The folks interested in improvement of labor conditions of women and children have been pointing to this exception and an attack was made upon it at the meeting of the State Industrial Board, an organization inside of the State Department of Labor and Industry, which is given large powers of making regulations supplementary to the laws relative to employment and inspection. The canning industry people pointed out that their business is one which can hardly be governed by hard and fast rules because in season it is essential to work long tricks as otherwise fruit or vegetables would spoil. This rush period is asserted not to inflict much hardship and the fact that people have been willing to take the hours is pointed to. Furthermore, the point was made that it would be impossible to procure people for double turn because the law prohibits employment of women after 10 at night.

Investigations into charges that eggs of ancient lineage, including some imported from China, are being used in the baking of bread and cakes and for other purposes in Philadelphia, is being investigated by agents of the dairy and food division who have been buying samples of products for chemical analyses and exercising a close supervision over the materials used in baking.

Enforcement of the pure food laws in several of the cities has resulted in finding that the evasions are confined to small merchants who persistently refuse to placard cold storage foods and sell them without the notice which the law makes mandatory. Dozens of such suits have been entered by agents of the food division and it is feared that it will take close supervision to check the abuse.

In a short time it is expected that the Dauphin county court will hand down its decision in the two food cases now in its hands, a rush of state cases involving taxation having held back disposal. These suits include the test of the cold storage law by an attack on its constitutionality and the criminal suit to determine whether products sent from a cold storage warehouse in Chicago and placed in a plant here can be regarded as re-entered in violation of the law.

No matter which way the suits in the Dauphin court are decided the chances are that they will be appealed to the higher courts and on the outcome will be based some of the amendments for the law. The regulation of shipments of products from other states bids fair to attract much attention as state officers contend that against the withdrawal of products from Pennsylvania plants and their shipment back to this state in different boxes or containers they are almost powerless.

The State Bureau of Standards expects shortly to secure an arrangement on tolerances, this being a matter which is in the hands of a committee. It is expected to act with the federal government at Washington and possibly to secure some arrangement with other states.

Interesting statements are looked for in the detailed report of the dairy and food commissioner for 1913. It will show among other things that of 6,846 samples taken 4,040 were of dairy products. The improvement in the food supply will be shown to be notable and that the number of offenders in the milk business is large. However, most of the adulteration will be shown to have been with water, hardly a case of formaldehyde being known.

The decision of the supreme court in the Missouri bleached flour case will not make any difference in the enforcement of the Pennsylvania food laws or those under which the bleached flour actions have been brought. The decision has been carefully read there and no change will be made.

Charles J. Roney, member of the legislature from Philadelphia, has been appointed as attorney for the dairy and food division in Philadelphia, succeeding Charles L. Brown, now presiding judge of the Philadelphia municipal court.

The report on the inspection of weights and measures just made for 1913 by James Sweeney, chief of standards, shows that practically every county in the state has named sealers and that all but four cities have done the same. The inspections during 1913 included 2,526 platform scales, 4,550 computing scales, 32,550 counter scales, 367 wagon scales, 73,617 weights, 49,002 dry measures, 21,807 liquid measures and 3,378 milk jars.

CONDEMNED FOOD DESTROYED.

Three cars of canned vegetables and 16,000 eggs were ordered destroyed recently at Chicago by Federal Judge Landis. The goods had been seized by the government under libels charging that the contents of the cars were in violation of the pure food laws.

According to Assistant District Attorney Frederick Dickinson, who had charge of the prosecution of the cases, the canned goods were part of the large quantities of foods which had been in the Ohio floods and had been submerged in dirty water. The shipments had been made to Chicago buyers by E. H. Fretchling, Hamilton, O. Forty-six cases of eggs each were ordered destroyed on the ground that they were decayed.


There was also destroyed a carload of 285 cases of "tomato conserve," a powder used in preparing spaghetti for table use. Judge Landis at the outset of this year ordered destroyed more foodstuffs than were covered by all such orders entered here during 1913.

The National Canners' Association laboratory at Washington should not be confounded with the National Canners' laboratory at Aspinwall, Pa. The latter institution was in operation before the National Canners' Association was started. The cuts published in our last issue, as the context of the story of the laboratory illustrated show, was of the National Canners' Association plant at Washington, D. C., although one of the cuts was referred to as the National Canners' laboratory.

The next convention of the National Wholesale Grocers' Assn. is to be held June 17, 18 and 19 next in Minneapolis, Minn., according to a recent announcement made by the president of the association, who stated that an important feature of the convention will be a congress of food industries.

MEETING OF CHEMICAL SOCIETY.
The forty-ninth meeting of the American Chemical Society will be held in Cincinnati, Ohio, April 7-10. A meeting of the council will be held on the evening of April 6.
Following are the addresses of the Divisional and Sectional Secretaries:
Divisions—Agricultural and Food Chemistry: G. F. Mason, H. J. Heinz Company, Pittsburgh, Pa.; Biological Chemistry: I. K. Phelps, Bureau of Chemistry, Washington, D. C.; Fertilizer Chemistry: B. F. Carpenter, Virginia Carolina Chemical Co., Richmond, Va.; Industrial Chemists and Chemical Engineers: S. H. Salisbury Jr., Lehigh University, South Bethlehem, Pa.; Organic Chemistry: C. G. Derick, Morris Ave., Lincoln Place, Urbana, Ill.; Pharmaceutical Chemistry: A. P. Sy, University of Buffalo, 24 High St., Buffalo, N. Y.; Physical and Inorganic Chemistry: R. C. Wells, U. S. Geological Survey, Washington, D. C.
Sections—India Rubber Chemistry: Dorris Whipple, The Safety Insulated Wire and Cable Co., Bayonne, N. J.; Water, Sewage and Sanitation: Harry P. Corson, State Water Survey, Urbana, Illinois.

Governor Glynn, of New York, has appointed a special commission to make a study and examination in regard to the production and distribution of milk in the state, and the proper inspection thereof, with a view to suggesting such amendment to the existing law on the subject as will meet public requirements.



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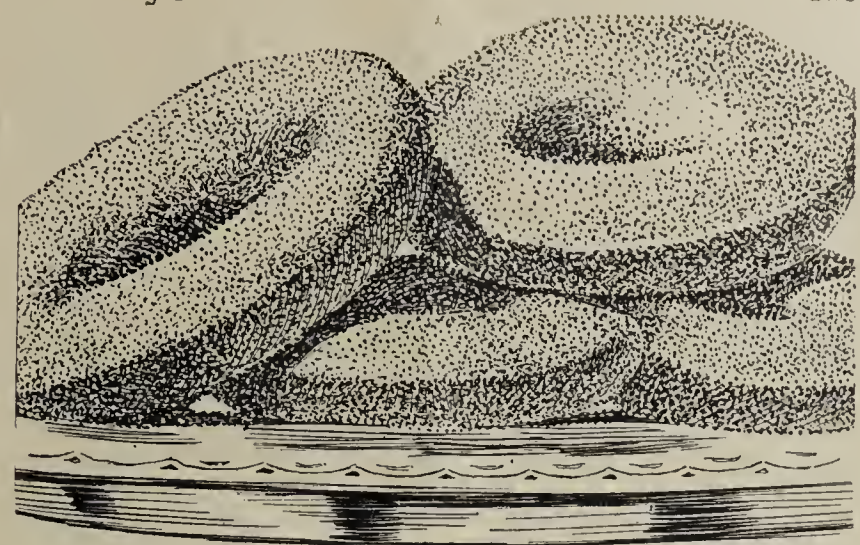
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YOURS TRULY COMPANY, Chicago

Washington, D. C., Correspondence

(From our Staff Correspondent.)

WASHINGTON, Feb. 27.—As usual, a certain chemist who was once in the employ of the government, believes the Supreme Court has again shown itself the enemy of mankind because, in what is known as the bleached flour case the court disagreed with the extreme view as to what the food and drugs act means. In one of the foolish publications in which he is treated as a demigod, not so often as formerly, he is quoted as having said "the Supreme Court has destroyed the pure food law" or tommy-rot to that general effect.

Every time anybody disagrees with him the earth is jolted out of its orbit—judging from the way he talks. Carlyle, referring to "chatter teeth" who were so prominent in the Reign of Terror must have had a man of that kind in mind.

The court has destroyed nothing except the extreme proposition that if there be any poison added by any of the processes of manufacture the article of food comes under the condemnation of the law. It has decided that when the government says there is an added poison in a certain thing, it is incumbent on the government to show that there is enough poison to injure somebody.

To a man of sense that does not seem like the destruction of a beneficial thing. Even those who contend for the extreme view that any added poisonous ingredient brings down the condemnation of the law will hardly contend that the law is fit only for the scrap heap. Of course it makes impossible prosecutions and requires the prosecuting officers to keep within the bounds of reason in bringing prosecutions. Any ordinary man would say that if the government wants to stop the sale of something that has poisonous things in it, the burden of proving that a really poisonous or deleterious article has been added is upon the prosecuting officers.

The court decides that the food and drugs act "has placed upon the government the burden of establishing, in order to secure a verdict of condemnation under this statute, that the added poisonous or deleterious substances must be such as may render such article injurious to health." It (the law) does not require the government to prove that the added or deleterious substances have had an effect upon the public health.

The question as to whether bleaching conceals damage or inferiority remains to be settled. It is obvious that if a jury should find that it does, the chemist before referred to would be left up in the air with feet dangling and ears flapping.

Justice Day, who wrote the opinion, pointed out that the construction contended for by the government would have the effect of erasing from the statute the clause "which may render such article injurious to health." As Congress wrote the fifth subdivision of section 7 it reads "If it contain any added poisonous or other added deleterious ingredient, which may render such article injurious to health." The justice says the prosecuting officers of the government tried to apply that part of section 7 as if it read: "If it contain any added poisonous or other added deleterious ingredient."

The decision established as a fact that if the government finds a trace of poisonous or deleterious matter added in the process of manufacture, that is not sufficient to bring down the condemnation of the law under the adulterated section. It must do something more. That something more is proof that the added poisonous or deleterious substances "may render such article (of food) injurious to health."

An honest man honestly striving to perceive the distinction drawn by Justice Day will not have the slightest difficulty. It is no reflection, either, upon the prosecuting officers who began the case, to say that. As administrative officers they are bound to resolve doubts in favor of the strictest construction of a statute. The reason for that should be obvious. If the administrative officer decides in favor of the loosest construction, then those who may be damaged by such loose construction, in this instance, the public health, will have no recourse. Whereas by adopting the strictest construction, the matter is forced into the courts, whose only duty is to construe that which is capable of more than one construction. When the case has gone back to the lower court for trial before a jury on the question as to whether bleaching hides damage, or makes an inferior article look something that is

admittedly superior, the Supreme Court may be called upon to construe the misbranding section in connection with bleached flour. For reasons that are obvious except to a limber-jawed chatter-tooth, no court on God's footstool decides a moot question, unless it be a moot court, or a question not actually at the bar in front of it.

In this case the court decided that the word "may" as used in the statute, has the ordinary dictionary meaning, that is, as an auxiliary verb, qualifying the meaning of another verb, by expressing ability, contingency, or possibility of probability.

The district court charged the jury that the law "condemns the adding of poisonous substances." The Supreme Court points out that what the law really condemns is the adding of poisonous or deleterious substances "which may render such article injurious to health."

It is all as plain as day—now. And that is not intended as a pun on the name of the justice who wrote the opinion. Proof that an article is poisonous is not sufficient. It must be proved that it must be of such a character and in such quantity "which may render such article (of food) injurious to health."

The object of the statute is to preserve health—not to lay foundations for queer and cranky health aenemics to clog the courts with pestiferous prosecutions in which the testimony is a mass of laboratory refinements meaning little to chemists and nothing to the man who is paying the bills.

What surprises the ordinary citizen is the fact that England has had a food and drugs act for nearly forty years and the rule laid down by Justice Day in his opinion, has been the rule in that land for years on end. Another surprising fact is that Americans were able to live in reasonable health before the food and drugs act was written on the books. From all of which it may be inferred that after all the calamity mentioned by the chemist no longer on the government pay roll is something other than what he said. The pity is that the rules pertaining to false and misleading labels cannot be applied to interviews by chemists.

On Feb. 16 the Supreme Court of the District of Columbia, speaking through Justice Gold, decided that Buffalo Lithia Spring Water was misbranded because there is only a small trace of lithium in the water and that it would be necessary for a man to drink from 150,000 to 225,000 gallons of that natural spring water to get a therapeutic dose of lithia, which is from five to seven and one-half grains three times a day when taken in the form of tablets. Justice Gould said that ordinary Potomac water, according to undisputed analyses, contains four or five times as much lithia. The fact that Buffalo Lithia Springs is the name of the place in Virginia where the water is obtained, the justice thinks is of no value whatever in determining the question.

There may be room for argument on the proposition of the justice that the water company may not use the geographical name of the place where it procures the water it vends without bringing itself under the condemnation of the law but it goes without saying that those who buy spring waters to hold rheumatism in check will feel like applauding the courts, if they appear to do something that congress seems to have forgotten—the use of misleading but absolutely accurate geographical terms. But correction of errors of judgment on the part of the law-makers is not one of the acknowledged functions of the courts.

In other words rheumatics, like other human beings, would like to have congress and the courts relieve them of any and all responsibility in acting on information and judgment in buying palliatives for their pet affliction.

In deciding the antikamnia case in favor of the Government, the Federal Supreme Court placed another fairly strong mark of approval on the administration of George P. McCabe as solicitor for the Department of Agriculture. That was one of McCabe's pet cases. He had to fight to get the law officers of the Government to take his view of the law in that matter but he finally "put it over," to use language that may not be out of place, even in the discussion of an opinion by so learned a man as Associate Justice McKenna.

The reversal of the Supreme Court and Court of Appeals

Oleomargarine Should Not Be Taxed

Under the existing law artificially colored Oleomargarine, tinted with the same harmless color used for coloring Butter is taxed 10c per pound; (uncolored Oleomargarine 1/4c per pound.)

Manufacturers of colored or uncolored oleomargarine, pay a Federal Revenue Tax of \$600 per year. Wholesale dealers pay \$480 for a license to sell the colored product, or \$200 for the uncolored. Retailers pay \$48 to sell colored Oleomargarine, or \$6 to sell the uncolored.

The amount of this tax comes out of the pocket of the consumer. Should it? Should the consumer, if he chooses to eat oleomargarine on his bread instead of butter, be compelled to pay at least 10c per pound additional for the yellow color if it is more tempting.

When the present oleomargarine law was passed it was claimed by the supporters of the legislation that the tax would prevent the sale of oleomargarine as butter.

The reports of the Collector of Internal Revenue show conclusively that the 10c per pound tax has been a great incentive for unscrupulous persons to buy uncolored oleomargarine, color it at practically no cost, and sell it for butter. Thus the law has fallen far short of accomplishing what was claimed for it, and has worked an un-

necessary hardship to oleomargarine manufacturers by throwing unjust suspicion of fraud, on them, and to consumers by compelling them to pay an exorbitant price as compared to the cost of production. Swift & Company have never sold or sanctioned the sale of oleomargarine as butter, but have sold their product on its own merits for just what it is—a perfect food product put up in plainly printed cartons.

Swift's Premium Oleomargarine is made in new sanitary factories open to the daily inspection of the general public and always in charge of U. S. Government Inspectors who pass on the quality and condition of all materials; see that everything is kept absolutely clean, and that every provision of the law governing the manufacture of oleomargarine and its sale by the manufacturers, is strictly complied with.

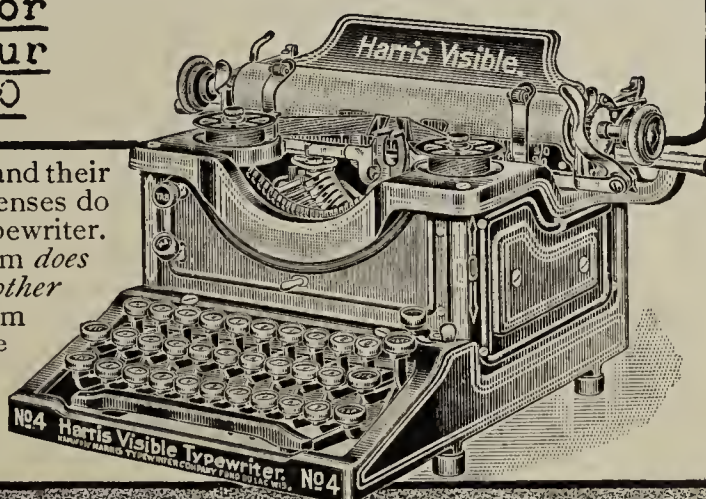
The 10c tax should be removed from colored oleomargarine at once, and a new law passed allowing the coloring of oleomargarine, any color or shade that is demanded by the consumer, and requiring that it be put up in plainly printed and securely sealed cartons of convenient retail sizes.

This would give the consumer perfect protection from fraud and an opportunity to buy an economical and tempting food product without paying an unjust tax.

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of the District of Columbia, in this case alone, shows that the highest tribunal in the land intends to make the food and drugs act accomplish what Congress intended it should, namely, the labeling of drugs in such a way that the man who buys may be put on fair warning as to the dangerous derivatives he may be taking into his system for remedial purposes.

The chemical company contended, in effect, that it is neither false nor misleading for it to say on its labels that the tablets contain no acetanilid and then follow it by giving the amount of acetpheneditin, without saying or doing anything to warn the buyer of the drug that acetpheneditin is a derivative of acetanilid.

In plain English the court said that the intent of the statute is to give warning to persons who have neither the information nor likely to look for it in a dictionary that acetpheneditin is a derivative of acetanilid, which the chemical company said is not contained in the drug. The company said that the assertion that the tablets did not contain acetanilid is not required by the law. But the label did so state and the impression on the mind of the purchaser would be that it contained none of the material that is generally regarded as a heartbrake, the use of which must be with caution. Inasmuch as there was nothing on the label to indicate that acetanilid is the parent or the granduncle of acetpheneditin, the ordinary buyer of the tablets would go on using them under the blissful impression that he had found something for his headache, which, no matter how much he might use, would not throw him into the danger of having his heart stop beating at a most inopportune time.

The deception practiced with regard to that drug undoubtedly was more harmful than the false impression created by the labels of those who do not use the recently discovered preservative upon the denunciation of which Dr. Wiley founded a large part of his reputation. They make boastful declaration that they use no "artificial preservatives" only vinegar and spices, just as if vinegar were not just as artificial a preservative as benzoic acid. The only difference between them is that vinegar was discovered a few years before the other acid, given a name that has no standing in the modern chemical terminology, and approved by long use. It occurs nowhere in nature. Artificers make it and it is artificial in the sense of the word that it was made and that it did not just naturally perform a Topsy-like act.

But to get back to McCabe's pet. When he took his proposition that the acetpheneditin should be seized, the then solicitor general, Mr. Lehmann, gave him small comfort; said there was nothing to the case; that the three secretaries did not have the power to require anybody to state the parent of the derivative if that parent happened to be one of the drugs that are required, by the law, to be declared on the label. At first blush it did seem as if the three secretaries, acting on the advice of Secretary Wilson, who got his ideas of what could be done under the law from McCabe, were adding something to the law when they made a regulation requiring the name of the parent drug to be declared on the label, if that parent happened to be one of the proscribed class.

Justice McKenna said: "It certainly cannot be said that the purpose of the law is not exactly fulfilled by the regulation. If it fulfills the purpose of the law it cannot be said to be an addition to the law, unless, indeed, it can be contended that the law provided a means for its defeat by the easy device of mysterious names. What information does the use of the word 'acetpheneditin' convey to anybody of its good or evil origin? If it be said that the like question may be asked of any of the primary substances, we reply that they are the precautions of the law and adopted as such because they had demonstrated themselves, the value of their use, the detriment of their abuse, and it was believed that their names would carry no deception."

But the justice wrote his opinion on the broader question as to the meaning of the law itself, rather than on the narrow question of the power of the three secretaries to make the regulation requiring the use of the name of the parent of the dangerous derivative. Answering his own query as to the purpose of the statute, the justice said its purpose "is to prevent the surreptitious sale of certain noxious drugs or their derivatives, the latter supposedly partaking of the qualities of the parent article and as effective of evil consequences. This being the purpose, did the law leave it unexecuted? We cannot attribute to it such defect, and serious defect it might be."

The opinion sustains the contention of McCabe to the last syllable, which was merely that the law intended to give the buyer a fair warning as to the character of the drug he was buying. There is no hardship on the manufacturer or the seller in that requirement. "They surely know what they

make or vend," says the opinion; "know whether it is primary or of what a derivative, and the law requires only that they put their knowledge on the labels for the information of purchasers. No serious burden is thereby placed on honest business. Indeed, it makes the label on the packages an assurance as well as a warning and benefits all concerned, manufacturer, seller and purchaser. And this in the interest of the public health."

Such a complete overturning of the two lower courts has not often occurred in the food and drug litigation. It leaves no doubt about the correctness of the belief or conviction, that the Supreme Court will brush aside technicalities when some other cases of great interest in the food and drug trade, now pending in the lower courts, come before it. If a manufacturer is honest with himself and his customers, he is not going to get into trouble in the courts, but if he is trying to turn a corner so swiftly that he hopes to again illustrate the truth of the assertion that the hand is quicker than the eye, he will be entitled to say, with the poet, "Woe is me."

UNDERSIZED SPRING CHICKENS.

Editor American Food Journal: Your article on marketing early spring chickens interested me very much but I cannot quite see the subject from your point of view.

As a matter of fact there are comparatively few chickens "the size of a snipe" marketed when the entire output of the producer is considered. It seems safe to say that a greater part of the early marketed birds go through the hands of the packers and the delivery of any chick under one and one-half pounds is very much discouraged, although anything weighing from one and one-half pounds to two pounds is looked upon with favor.

The greater portion of young stock after being marketed by the producer is placed on full feed where it is made to gain from thirty to fifty per cent, thereby making it very presentable as to size, quality and condition before reaching the hands of the ultimate consumer.

It appears somewhat unfair to attach the cognomen of "epicure" to a man because he may be a lover of young and tender fried chicken, because the words "fried chicken" bring the water to the corners of the universal mouth, and there will always be a demand for this article as long as chickens are sold for food purposes.

A frier weighing around two pounds is as much matured according to its class as is the young beef of one and one-half to two years of age, since it has reached or passed the half-way mark on the road to maturity. Therefore it seems a little fallacious to place them in the class with young veal, undersized fish and other such articles of food. There seems to be no great sentiment stirred up on account of the marketing of fat, young beeves.

If the birds, especially the males, and they are the ones usually marketed earliest, are held until they become young cockerels the public taste will have to be diverted from friers to bakers, roasters, or stews.

To lament about the producers loss in marketing young birds seems a little out of the ordinary. For example, a two-pound bird marketed at fifteen cents per pound will net thirty cents. If he holds this bird until maturity or more nearly so, he must sell for about ten cents per pound, thereby receiving thirty cents for the product. Now the question arises, what is his remuneration for labor and feed during the month it takes to put on this additional weight, when feed and labor are so costly as at the present time?

These facts would go to show that the time to market the young chickens is when the price is high and the cost of production low.

A chemist of Prague claims to have discovered a preparation for the perfect preservation of smoked meat products, such as hams and sausages. The preparation is an inexpensive liquid and it is claimed that smoked meat dipped in it will keep in its natural condition in any climate and in any season for at least five weeks. The liquid employed forms, 12 hours after application, a solid coating, and when this coating is formed the meat is protected against high temperatures, dust, flies and insects. It is further claimed that the application of this process does not cause any deterioration of the meat so treated in flavor, weight or natural softness. The cost for dipping one ham of average size does not exceed eight cents.

According to the annual report of the milk inspector of the Board of Health of Boston, Mass., the income of the office was larger than that of any previous year, fines and license fees amounting to more than \$13,000.

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TO THE JOBBER AND RETAILER



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Plans are already laid to place Waw Waw in its deserved position as the King of Table Sauces.

We cannot make Waw Waw Sauce itself any better but we can and will make Waw Waw Sauce a better seller.

An extensive advertising campaign in the leading Journals is now in course of preparation. No pains, expense or effort will be spared to make Waw Waw a leader in easy, steady selling, just as it is now a leader in quality.

Full details of the new plans will be mailed to jobbers and retailers throughout the country. In the meantime the already increasing inflows of orders are being filled promptly from our New York warehouse.

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Corn Meal the American Indians' Gift

OLD INDIAN RECIPES AND OTHER METHODS OF USING CORN MEAL

The Department of Agriculture's experts in nutrition have been studying the possible uses of corn meal, which they have figured out makes up over 8% of the total food consumed by the people of the United States. In a farmer's bulletin (No. 565) entitled "Corn Meal As a Food and Ways of Using It" several dozen recipes are given that may call to mind old favorites and suggest to the housewife untried dishes both appetizing and nutritious. Some of these recipes date back to the aborigines of the soil. One of them is as follows:

ZUNI INDIAN BREAD.

1 cup white corn meal. 1 teaspoon salt.
1 cup yellow corn meal. 1/8 teaspoon cayenne.
1 cup water. 1 cup chopped suet.
Mix all well together; form into rolls about 5 inches long; roll in greased paper; and bake in a moderate oven 1 hour. Serve hot.

The habit among the Indians was to roll these cakes in the husks of the corn, a method which is sometimes followed by campers.

There are other simple breads which were first made by the Indians and are very old types, closely resembling the breads of other primitive people. Though easy to prepare, they are nevertheless very palatable. Two of these are "Ash Cake" and "Hoe Cake":

ASH CAKE.

1 quart corn meal. 1 tablespoon lard or other shortening.
2 teaspoons salt. Boiling water.

Scald the meal; add the salt and shortening, and when the mixture is cool form it into oblong cakes, adding more water if necessary. Wrap the cakes in cabbage leaves, or place one cabbage leaf under the cakes and one over them, and cover them with hot ashes.

HOE CAKE.

Hoe cakes are made out of corn meal, water, and salt. They were originally baked before an open fire on a board which for convenience had a long handle attached to it. At present they are cooked slowly and on both sides on a well-greased griddle.

Certain dishes made of Indian corn have become identified with certain localities and thus we have particular recipes bearing the names of these localities. For instance, there is South Carolina Corn Bread.

SOUTH CAROLINA CORN BREAD.

1 1/2 quarts fine corn meal. 1 1/2 quarts wheat flour.
2 1/2 quarts wheat flour. 2 teaspoons salt.
or 1 pint mashed sweet potatoes.
2 1/2 quarts fine corn meal. 1 cake yeast.

Mix 1 pint each of the corn meal and the flour and add warm water enough to form a stiff batter. Add the yeast cake, mixed with a small amount of water. Keep this sponge in a warm place until it becomes light. Scald the meal with boiling water and as soon as it is cool enough add it to the sponge.

Boston Brown Bread may be made as follows:

1 cup of corn meal. 1 teaspoon salt.
1 cup rye meal. 3/4 cup molasses.
1 cup Graham flour. 2 cups sour milk, or
2 1/2 teaspoons soda. 1 3/4 cups sweet milk.

Mix and sift the dry ingredients and add the molasses and milk. Beat thoroughly and steam 3 1/2 hours in well-buttered, covered molds. Remove the covers and bake the bread long enough to dry the top.

This may be made also with 1 1/2 cups corn meal and rye meal and no Graham flour.

BOSTON BROWN BREAD WITH FRUIT.

Follow recipe for Boston brown bread, adding to the dry ingredients a cup of seeded and shredded raisins or prunes or a cup of Zante currants.

BOSTON BROWN BREAD WITH CREAM.

1 cup rye meal. One-half cup molasses.
1 cup corn meal. 2 eggs.
1 teaspoon salt. 1 1/2 cups thin cream.
Sift the dry ingredients. Add molasses, yolks of eggs well beaten, and cream; lastly, fold in the whites of eggs beaten

stiff. Pour mixture into buttered mold, steam 3 hours; then bake 1 hour in a moderate oven.

Italy has also contributed to the list of palatable dishes which may be evolved from corn meal. An instinctive attempt on the part of Italians to supply the body with all the food elements required, by means of one dish has resulted in "Polenta":

This dish, which is common in Italy, differs little, except in name, from hasty pudding, though it is served in very different ways. Sometimes cheese is added during the cooking. Polenta is often reheated either with tomato sauce, or a meat gravy left over from a meal or with a meat gravy made from a small amount of meat bought for the purpose, or with half tomato sauce and half meat gravy. In any case, the dish is improved by sprinkling each layer of polenta with cheese. When the polenta is to be reheated in gravy, it is well to cut it into small pieces in order that the gravy may be well distributed through the dish.

TOMATO SAUCE FOR POLENTA.

2 tablespoons butter. 1 cup thick strained tomato juice.
2 tablespoons flour. Salt and pepper.

Melt the butter; cook the flour thoroughly in it; add the tomato juice and seasonings and cook until smooth, stirring constantly.

Another attempt to produce a balanced ration in one dish has been made by the natives of Jamaica. It is called "Stamp and Go," and consists of salt fish, lard and corn meal, and has a nutritive value resembling that of scrapple. A good recipe for scrapple is the following:

CORN MEAL SCRAPPLE.

1 pig's head split in halves. Salt and sage.
2 cups corn meal.

Cook the pork in water until the meat can be easily removed from the bone. Remove the meat, cool the broth, and remove the fat. Reduce the broth to about 2 quarts or add water enough to bring it up to this amount, and cook the corn meal in it. Add the meat finely chopped and the seasonings. Pack in granite bread tins. Cut into slices and fry.

The addition of meat to corn meal does actually tend to produce a balanced ration, for the meat furnishes protein and fat while the corn meal furnishes starch. There are a number of dishes made from corn meal and meat or fish in which mush is made, or which resemble mush in some particulars. Among these are corn meal fish balls and tamales, recipes for which are given herewith:

CORN MEAL FISH BALLS.

2 cups cold white corn meal 1 egg.
mush. 1 tablespoon butter.
1 cup shredded codfish.

Pick over the codfish and soak it to remove salt, if necessary. Combine the ingredients and drop by spoonfuls into hot fat. Drain on porous paper. These codfish balls compare very favorably in taste with those made with potato and are more easily and quickly prepared.

TAMALES.

Meat from 1/2 boiled chicken. 1 teaspoon salt.
1 clove, garlic or 1/2 medium-sized onion. 1 cup corn meal.
1/4 teaspoon cayenne. 2 or 3 small red peppers.
Corn husks.

Chop the chicken; season with the cayenne pepper, garlic or the onion finely chopped, and salt; form the meat into little rolls about 2 inches long and three-fourth inch in diameter. Pour boiling water over the meal and stir; use water enough to make a thick paste. Take a heaping tablespoon of the paste, pat it out flat, and wrap a roll of chicken in it; then wrap each roll as made, in corn husks which have been softened by immersion in hot water, tying the husks with a piece of string close to each end of the roll. Trim off the ends of the corn husks, allowing them to project an inch or two beyond the rolls. Cover the rolls with the broth in which the chicken was cooked, or with boiling salted water. Add two or three small, sharp, red peppers, and boil for 15 minutes.

Tamales are usually made with chicken, but other meat may be used if desired.



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VIOLATIONS OF MEAT LAWS.

The Service and Regulatory Announcements of the Bureau of Animal Industry, U. S. Department of Agriculture, issued February 10, 1914, contain the following statements with regard to convictions for violation of laws:

In cases against the following persons charged with violating the meat inspection act in shipping in interstate trade meat or meat food products which were unfit for food purposes, the defendants pleaded guilty and were fined the amounts indicated:

Ben Cohen, Cornwall Bridge, Conn., \$200; Henry Stallman, Elkhorn, Wis., \$15; John Mosloski, Fairmont, Minn., \$25; H. T. Chase, Jericho, Vt., \$50; A. W. Fisher, St. Albans, Vt., \$150; W. A. Abbott, Groton, N. Y., \$25; W. C. Betts, East Windsor, N. Y., \$100 and costs.

In cases against the following persons charged with violating the meat inspection act in shipping in interstate trade meat which did not bear the marks of Federal meat inspection the defendants pleaded guilty and were fined the amounts indicated:

Julius Sostman & Sons, Philadelphia, Pa., \$25; Jacob Glassman, Delray, Va., \$5; J. W. Mehrling, St. Elmo, Va., \$5; Domenico Petrini, Boston, Mass., \$50; Herbert Sostman, Atlantic City, N. J., \$25.

In the case against Morris & Co., New York, N. Y., charged with violating the meat inspection act in shipping in interstate trade meat which did not bear the marks of Federal meat inspection, the defendants entered a plea of *nolo contendere* and the court imposed a fine of \$100.

The following results of prosecutions for violations of the live stock quarantine law have been reported to the Bureau during the period from December 11, 1913, to January 31, 1914, inclusive:

F. L. & H. W. Lynch, interstate movement of cattle infested with Texas-fever ticks, \$100; Louisville & Nashville R. R. Co., interstate movement of sheep affected with scabies, \$100; Missouri, Kansas & Texas Ry. Co., interstate movement of cattle affected with Texas-fever ticks, \$200; Wichita Falls & Northwestern Ry. Co., interstate movement of cattle affected with scabies, \$100; Thompson & Jessen, interstate movement of cattle affected with tuberculosis, \$100.

The following results of prosecutions for violations of the 28-hour law have been reported to the bureau during the period from December 11, 1913, to January 10, 1914, inclusive:

No. of cases.	Defendant.	Fine.
29	Illinois Central R. R. Co.	\$3,050.68
1	Southern Ry. Co.	140.60
13	Michigan Central R. R. Co.	1,516.96
5	Missouri Pacific R. R. Co.	584.10
20	Cleveland, Cincinnati, Chicago & St. L. R. R.	2,367.59
1	Wabash R. R. Co.	113.61
1	Mobile & Ohio R. R. Co.	113.55
1	Chicago, Burlington & Quincy R. R. Co.	113.61
1	Chicago & Alton R. R. Co.	113.55
2	Grand Trunk Ry. Co.	214.24
1	Nashville, Chattanooga & St. Louis Ry. Co.	119.55
1	St. Louis, Iron Mountain & Southern Ry. Co.	116.20
1	Kentucky & Indiana Terminal R. R. Co.	118.70
1	Central Vermont Ry. Co.	231.83
3	Richmond, Fredericksburg & Potomac R. R. Co.	318.30
1	Missouri, Kansas & Texas Ry. Co.	160.30
1	Pere Marquette R. R. Co.	112.21
4	Southern Pacific Co.	928.47
1	Chesapeake & Ohio Ry. Co.	114.45

These convictions were for violations of the law which prohibits the confinement of live stock in cars for more than 28 hours, or, when a special request is signed by the shipper, 36 hours, without unloading for feed, water and rest.

YELLOW BAKING POWDER.

The Department of Agriculture has recently received letters from a number of persons who desire to place a product on the market under the name "Egg Powder" or "Egg Substitute." These designations would undoubtedly lead the ordinary purchaser to believe the product either to be made from eggs or to have the effect of eggs in baking. In reality, the product is nothing but a baking powder containing a considerable excess of ground rice as a filler and colored yellow with powdered turmeric.

The Food and Drugs Act prohibits the sale of food products under false or misleading names and as it is evident that a product of this kind cannot be regarded in any way as a substitute for eggs in baking, its sale as an egg powder or egg substitute is not sanctioned by the Department.

CASES IN PERMANENT ABEYANCE.

The Secretary of Agriculture hereafter in those cases where the department decides not to prosecute a manufacturer after he has been cited and has appeared for alleged violation of the Food and Drugs Act, will give prompt notice to the parties interested.

The proceeding in cases where the department suspects that a manufacturer is violating the Food and Drugs Act is to take samples of his product in interstate commerce and cite the manufacturer to a hearing. This preliminary hearing is wholly ex parte and confidential in nature, and evidence gathered in this manner is regarded as privileged. No information as to the hearing is made public. Heretofore, however, in cases where, after a hearing, the department decided not to prosecute and places the matter in permanent abeyance, no notice to that effect has been sent to the manufacturer. As a result, manufacturers whose cases were abated could not know where they stood in the matter until the statute of limitations had run. This was equivalent to putting a flaw in their titles, and as a result such manufacturer would find difficulty in selling his business or borrowing money and was forced to do business under a cloud. Under the new plan, the manufacturer will be immediately notified of the decision of the department not to prosecute on the basis of the particular sample taken in interstate shipment.

Placing a case in permanent abeyance, however, does not necessarily mean that the manufacturer's goods have been found to be absolutely pure or are in any way approved by the government. In many cases permanent abeyance results from the fact that there is a flaw in the evidence as to interstate shipment, that the intervening decision of the courts in other cases would make prosecution unsuccessful, that some amendment to the law adopted after taking the sample changed the legal aspect of the matter, or that it would be unprofitable to prosecute the case until the higher courts had ruled on parallel cases.

The abatement of the prosecution applies only to the particular article and the particular interstate shipment which was the basis of the hearing, and does not mean necessarily that the government will not take additional samples and undertake a new proceeding or inquiry. Notice will simply mean that the particular case is no longer hanging over the manufacturer's head. This will clear his record under the Food and Drugs Act in that particular case, but still leave him responsible under the Food and Drugs Act for his goods in the future.

GOVERNMENT WINS FOOD CASES.

Notices of judgment have recently been published by the Department of Agriculture, in three cases involving adulteration or misbranding in violation of the Food and Drugs Act, as follows:

In a libel filed in the district court for the southern district of New York against 151 cans, each containing approximately 25 pounds of frozen eggs, and 43 cans, each containing approximately 50 pounds of frozen eggs, which had been shipped in interstate commerce, it was alleged that the eggs were adulterated in that they consisted in whole or in part of a filthy and decomposed animal substance. On October 22, 1913, the court ordered the product to be destroyed and the costs of the proceedings, amounting to \$66.12, to be assessed against the claimant.

New Wooster Preserving Co., of Wooster, Ohio, was charged with the interstate shipment of a quantity of tomato catsup, alleged to be adulterated in that it consisted in whole or in part of a filthy and decomposed vegetable substance. The product was labeled "Ideal Brand Tomato Catsup. Formula, etc.: . . . 1/10 of 1% Benzoate of Soda . . . Guarantee, etc., Mfg. by the New Wooster Preserving Co., Wooster, Ohio." On May 16, 1913, the defendant company entered a plea of guilty and the court imposed a fine of \$25 and costs.

The Board, Armstrong & Co. corporation, of Alexandria, Va., were charged with the interstate shipment of a quantity of so-called apple cider vinegar, labeled as follows: "Board, Armstrong & Co. White House Pure Apple Cider Vinegar, Alexandria, Va." Adulteration was charged for the reason that a certain substance consisting of a mixture of a foreign material high in reducing sugars and dilute acetic acid or distilled vinegar had been mixed with the product so as to injuriously affect its quality and strength and had been substituted in part for the article. Misbranding was charged in that the article was not as represented on the label, i. e. "Pure Apple Cider Vinegar." On October 23, 1913, the defendant company entered a plea of guilty, and the court imposed a fine of \$10 and costs.

Food and Drug Law

McLanahan & Burton announce the initiation of a Department of Food and Drug Law, in charge of Mr. Gustavus B. Spence, for the past four years a member of the Office of the Solicitor, United States Department of Agriculture.

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Importance of the Farm Kitchen

FEDERAL GOVERNMENT'S ARCHITECT POINTS OUT IMPORTANCE OF FARM BUILDING CONSTRUCTION

THE importance to the farmer of having an economical farm house has been emphasized by the farm architect of the Department of Agriculture, who states that the mental and physical fitness of the laborers both within the house and in the fields are vitally affected by the building that affords the family shelter. The average American farm home has failed to share in the improvements that are every day being made in agricultural conditions and, according to the architect, is a rebuke to our boasted civilization. Relatively, he says, the housewife of a century ago with her fireplace cooking and log cabin was better provided for than is the housewife today.

The most important building on a farm is the home. The health, comfort and happiness of the family are dependent upon its construction and equipment, and unless these matters are looked after the sanitary dairy barn or the economically constructed buildings for stock are of little value. Happiness and contentment in the family are as essential to efficient service as improved tools and outbuildings.

Although the housewife spends, in many cases, a lifetime in her "workshop," the kitchen and the family rooms, she is not, as a rule, capable of planning a house in the highest degree serviceable and comfortable without assistance. Her help, however, is essential to the farm architect, as the result of his plans most vitally concerns her.

In 1910 a western farm paper, at the suggestion of the Department of Agriculture, conducted a competition for farm house plans. About 660 plans of farm houses were submitted, not one of which was fully satisfactory. The larger number insisted on some particular pet notion and emphasized a single feature to the neglect of other important ones. The men and women who familiarize themselves with the work to be done, and then apply themselves to the single task of devising means, are the ones who, with the co-operation of the farmers, and their wives, can best handle the farm house problem.

One of the most important details regarding the average American farm house is that it must be inexpensive. The average annual net income of a farmer today, after deducting five per cent interest on his investment, is less than \$400. This does not mean that the houses may not be attractive. They may, if intelligently planned with the help of vines, shrubs and trees, become the prettiest spots in the landscape, and more beautiful and inexpensive than the crowded city houses.

The tenant-house problem is growing in importance, as can be seen from the fact that the number of rented farms increased by more than 324,000 during the last decade. Today little more than half the farms in this country are operated by the owners.

TO ECONOMIZE THE HOUSEWIFE'S STRENGTH.

The possible economy in household labor and the conservation of the strength of the housewife are two important factors to be considered in the construction of a farm house. Pleasant and comfortable farm homes tend to hold families together; but the cheerless, unlovable and insanitary houses drive boys and girls to the cities. Investigation of prisons, insane asylums and houses of correction, seem to prove the fact that the sins which account for the existence of these institutions are often bred in inadequate and unhappy farm homes. So this social aspect of the problem is considerable.

The public is awakening to the fact that better farm houses are needed, and the special feature which many farm papers now issue as a "House Building Number" proves its interest to thousands of readers.

The Office of Farm Management of the Department of Agriculture has now undertaken to investigate this problem systematically and to evolve, if possible, practical improvements for the benefit of the farmer's home.

Certain features are often overlooked in providing economical arrangements for the household when they might be easily provided for. One of the specialists of the Office of Farm Management learned from a woman in Pennsylvania, who had broken down from overwork, that she had been carrying coal from the barn for years. When the husband was asked if there was any reason why a coal bunker could not have been provided near the cookstove and filled directly from the wagon, he answered that there was none, but that no

one had ever thought of it. This one detail has been found neglected in other cases where it could have been easily remedied, if only someone had thought of it.

After economy in the construction of the building and in the house work has been attained, attention will be given to developing beauty. Simplicity in line and good proportions are meant by the use of this word beauty, and not so-called applied "ornaments." This simplicity is entirely in keeping with a general plan of economy.

Economy, however, is not a synonym for cheapness. Double strength glass may even be more economical in a tenant house than single strength, notwithstanding its greater first cost. A kitchen sink may be a paying investment although it excludes a bay window, or a fireplace, which has been the pet notion of the housewife. Screened-in kitchen porches, sleeping porches, double or triple windows and kitchen conveniences are fine economical features which even the smallest house plans may well consider. Separate dining-rooms for families that generally eat in the kitchen are less important, as are "parlors." These separate rooms may have complete systems of plumbing, heating and lighting which involve additional expense. The kitchen is the most important room in the farm house.

For the average farmer, economy bars a room especially reserved for weddings and funerals. A back stairway in small houses is an unnecessary luxury. Large halls which are never used to live in, but merely as thoroughfares, are a feature which can be dispensed with in the interest of a smaller outlay of money.

Other features that should give way to a comfortable and convenient kitchen are narrow porches, filigree work, numerous angles in walls and roof, useless doors. There should be an intelligent purpose for every cubic foot of space and for every piece of material about the building, if possible.

It may not be found practicable for the Department of Agriculture to furnish plans and specifications of farm houses worked out for particular individual needs. However, it is believed to be desirable to work out plans and specifications for the general needs of farmers and to illustrate and explain the plans so that the farmer may understand the principles involved and apply them when he remodels his present house. The Office of Farm Management is endeavoring to help the farmer and the farmer's wife along these lines.

WANT WOMAN INSPECTOR.

Stirred into activity by the filth they encounter in inspection of food, the Housewives' League of Toledo, Ohio, began circulation of petitions Friday in which council will be asked to appoint a salaried food inspector. It is proposed that the new position be filled by a woman.

In defense of the proposition to appoint a woman to the job, Mrs. A. B. Crossman, of the League, says: "The work of inspecting food commodities which are to be handled by the housewife in her kitchen should be thorough. A woman, by reason of her knowledge and experience with food, is certainly better qualified to see and correct wrong methods. Indeed, a woman can see dirt where a man would give his unqualified approval of the conditions."

The movement will extend to women's clubs, civic organizations, welfare workers and consumers in general, the housewives predict, and a petition bearing the approval of many agencies will be presented to council for action.

The housewives also went on record as favoring the retention and building up of the city retail market. They declare that for its purpose a municipal market is as important to the women as schools, art museums and city bridges are in their respective fields. They favor a retail market that will compare favorably with any in the country.

The Housewives' League, which was organized in Denver a month ago to smash the high cost of living and make demand for the enforcement of the pure food laws, is to be carried into other parts of the state. Mrs. C. M. Lillie, president of the Denver League, has been appointed state organizer by the National League, and will soon embark upon a campaign to establish Housewives' Leagues all over the state.



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AGAINST STERILIZED MILK.

Word comes from London, Eng., that widespread interest is aroused by the declaration of Robert Mond, the well known scientific chemist, that sterilized milk is dangerous food for children, especially since so high an authority as Sir Almroth Wright appears disposed generally to support Mond's conclusions, suggesting the advisability that the whole question be made the subject of further scientific research under the direction of the government.

Mond's experiments for many years in the experimental dairy and in an infants' hospital tend to confirm Dr. Koch's assertion that tubercular infection is not conveyable in milk from cattle to human beings—an opinion which is opposed to the general medical belief.

Even more startling is his conclusion that sterilized condensed milk is dangerous to children because sterilization, by destroying the natural nutritive properties of the fluid, weakens instead of nourishing the child, thus directly predisposing to tubercular infection.

One experiment consisted in feeding a number of kittens on sterilized milk. All died of starvation in a fortnight. Similarly, a large number of infants fed exclusively on the same diet developed tuberculosis of the bovine type, whereas natural milk from tuberculous cows did not produce any symptoms of disease.

Sir Almroth Wright's conclusion is that the importance of excluding infection generally is exaggerated. He thinks well nourished children are best able to resist or eject disease germs, and considers the nutritive value of milk undeniably affected by sterilization.

Dr. Ralph Vincent in a book just published, entitled "Nutrition for the Infant," asserts that the use of sterilized milk and patent foods induces rickets, infantile scurvy and various intestinal disorders.

It is safe to prophesy that these opinions will lead to a battle royal of physicians. Meanwhile millions of anxious mothers the world over, for years advised by doctors to avoid unboiled milk, now find themselves warned by chemical experts against following this advice.

The immediate result of the controversy probably will be to create widespread doubts as to the value not only of boiled milk but of medical specialists' opinions, at the same time relieving the cow of much undeserved reproach.

BARLEY AND BUCKWHEAT.

Buckwheat, with an estimated production of nearly 14,000,000 bushels has been exceeded in production many times and is nearly 19 per cent below the five-year average. Its value is estimated at over \$10,000,000, and in this respect also the crop has been exceeded many times, and it is nearly 11 per cent under the five-year average. Chief among the buckwheat-raising states are Pennsylvania, New York, and Michigan, in the order mentioned.

The barley crop of 178,000,000 bushels as estimated has been exceeded twice in quantity and is 1 per cent below the average production of the preceding five years. The estimated value of this crop, \$96,000,000, has declined in greater degree than has the production. Four barley crops have exceeded this one in value and it is 11 per cent below the average value of the crops of the preceding five years. The principal barley states in 1913 are Minnesota, California and North Dakota, in the order named.

PASTEURIZED MILK BILL.

The City Council of St. Louis passed the pure milk bill by practically a unanimous vote. Councilman Joseph M. Ebeling voted to kill the bill, saying it was too drastic.

The passage of the bill by the Council puts the measure in the hands of Mayor Kiel, who stated he is heartily in favor of the movement, and will sign the bill. The House of Delegates passed the milk bill several weeks ago.

The passage of the bill followed public hearings in both branches of the Municipal Assembly, during which small milk dealers objected to the provision of the ordinance placing them under the supervision of the Health Department. They claimed the requirement for pasturizing milk not produced under absolutely sanitary conditions was drastic and unnecessary.

The bill has been generally misunderstood by the small dealers. It does not necessarily require that all milk sold by them shall be pasteurized. It merely states that milk which is unsanitary shall be so treated. The large dairies in St. Louis were unanimously in favor of the passage of the bill. Many of them during the hearings said that they have been advocating the pasteurization precaution in protecting the health of infants for some time.

Practically every institution which has to care for children and the sick has indorsed the measure. The bill exempts condensed milk. Members of the Assembly have generally agreed that during the process of condensation bacteria are destroyed.

POOR BEANS PROHIBITED.

The Department of Agriculture, through the Bureau of Chemistry, has given notice to manufacturers of canned baked beans or pork and beans that it regards the practice of using "cull" or other beans which are mouldy, musty or otherwise decomposed in these products as manifestly contrary to Section 7, paragraph 6 of the Food and Drugs Act.

Notice is also given that the use of tomato sauce or pulp which is prepared from decomposed tomato or trimming stock, in the preparation of baked beans or other food products with tomato sauce is also considered a violation of the law.

HONEY-CURED HAMS.

As is well known, says Gleanings in Bee Culture, in olden days honey was used as one of the materials employed in the curing of hams. Madam Maeterlinck, wife of the Belgian poet, Maurice Maeterlinck, who is an enthusiast with regard to the use of honey in cooking, gives the following recipe:

"To make it, a brine is formed of four pounds of coarse salt and an ounce of saltpetre; two pounds of honey and two gallons of water. All the ingredients are well blended and poured over the hams, which are permitted to rest in the honeyed brine for six weeks, when they are found to be marvelously saturated with a flavor that is truly indescribable."

In a case tried before the Supreme Court of Pennsylvania, on a complaint of the William L. Roylance Co., a fruit packing company of Provo, Utah, against the Descalzi Fruit Company, a Pittsburgh commission house, it was settled that there is no difference in the opinion of the law between "strictly fancy" and "fancy" grades, and the court refused to sustain a rejection based upon such a distinction.

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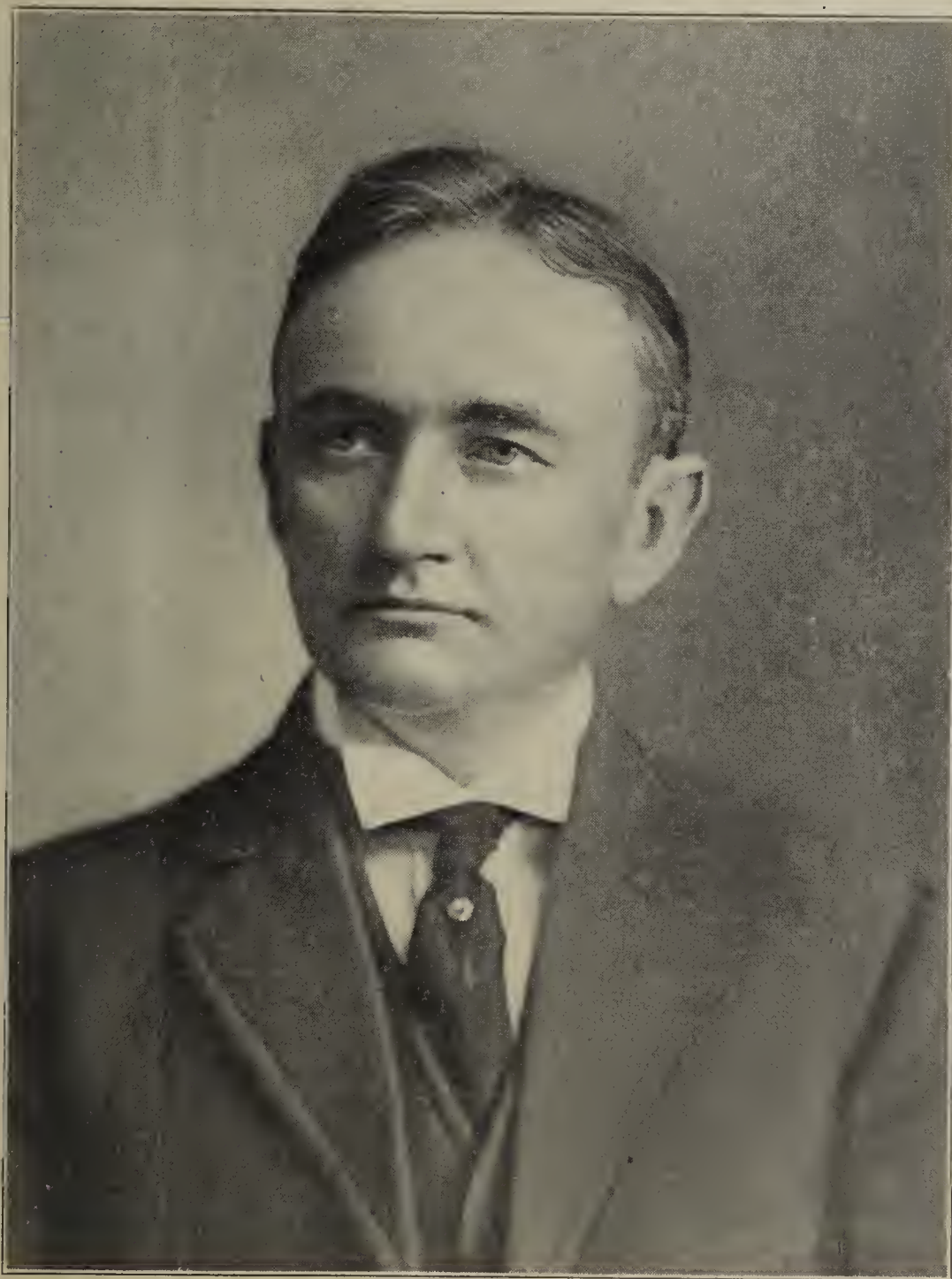
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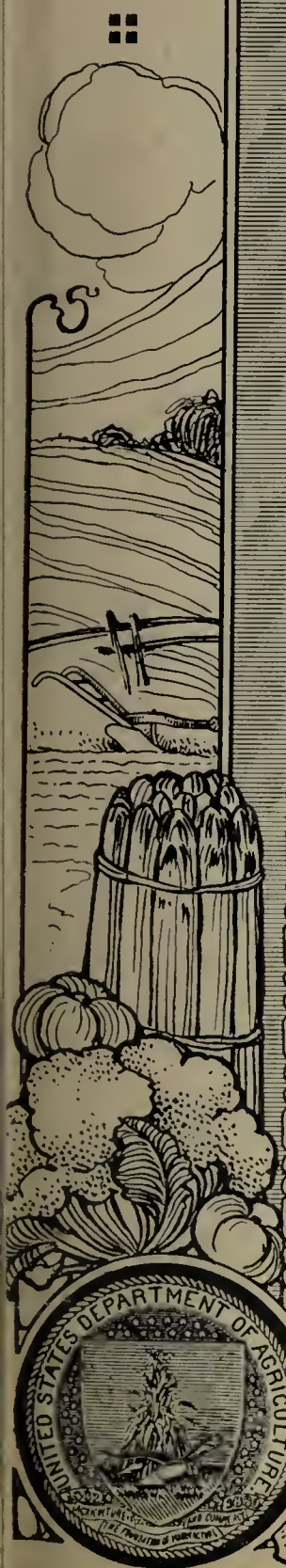
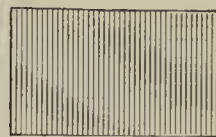
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J. S. ABBOTT,
Bureau of Chemistry,
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VOLUME IX.

APRIL, 1914.

NUMBER 4.

Competition with a Vengeance

UNCLE SAM appears to be trying to build up a monopoly on the transportation of small packages by the same methods the giant business concerns of the country used in creating monopolies.

It will be recalled that many of the big trust combines went into certain zones where they sold their product at cost or at a loss until the small competitor was forced to the wall. Then another competitor in another zone was attacked until he too passed out of existence.

And so on through the various zones the vicious warfare was carried on fighting competition in detail until the field was practically cleared of competitors.

Always a few competitors scattered over the country survived the battle waged by the giant concerns, but their survival was largely a matter of tolerance. They were allowed to stay in business provided they agreed to compete fair, the big concern determining what was and what was not fair.

Uncle Sam, while heaping abuse and making laws on the one hand against the trusts, is running his parcels post business largely after the manner of a Rockefeller or cracker trust, except that Uncle Sam in his crusade against the middle man and the carriers purposes to put both out of business if possible.

Already one old express company has gone to the wall because it could not stand the competition with Uncle Sam. If the competition were fair there would be no cause for complaint. Fair minded men would favor the survival of the fittest. But so long as Uncle Sam runs his post office business at a loss, there can be no permanent competition with competitors who must make expenses and pay dividends.

The excuse for the enlargement of the parcels post branch of the service is to bring producer and consumer closer together. To help the farmer and help the consumer.

So far as the farmer is concerned he needs no help. He has been helped and helped by the government until he has become the greatest autocrat in the country. All the help that is given the farmer goes to the man who owns the farm. But the real farmer, the man who farms the farm gets none of these "contributions to the farmer." He and his hired man come in the class of consumer. Like the consumer of the city, he gets some advantage by the use of the parcels post. But not much. The city consumer is benefited inasmuch as he is able to get a package of stuff from the farm at a reduced price. But the government might as well give him a certain sum of money representing the government's loss on the transportation.

Then there are the legitimate middlemen who are prevented from doing business by the government's "business" methods. They are forced out of business because they cannot stand the kind of competition the government offers. It is as unfair as the character of competition the trusts engaged in to put legitimate competitors out of business.

In the end there will needs be a great revision in our postal methods. Uncle Sam will have a big express business on his hands that will have to be run separate and apart from his regular mail business.

The thing is not, as some have said, dangerously near socialism, it is socialism in fact. If it is a good thing then the government should go into business on a larger scale, taking over all the larger utility concerns.

ENCOURAGE HONEST INDUSTRY.

THE hearing is now on at Madison, Wis., before Judge Sanborn of the U. S. District Court, in the suit of the Corn Products Refining Company against Food Commissioner J. Q. Emery of Wisconsin, the Corn Products Company claiming that a law passed by the last legislature compelling the use of the word Glucose on the label is unconstitutional.

The trial is now on the merits of the case. The Corn Products Refining Company contend that the decision of the United States Supreme Court, rendered in 1913, giving them the right to label their product Corn Syrup in interstate commerce, is now being evaded by the Wisconsin authorities.

The contention of the plaintiff is that the use of the word Glucose confuses in many people's minds, the origin of their product, and that where the company has been compelled to use the term Glucose their business has fallen off.

We believe the spirit of these prosecutions are entirely wrong and at variance with good judgment when there is no question of adulteration or the wholesomeness of the food product involved, but simply a matter of under what name the product should go to the consumer.

If the Wisconsin authorities feel justified in compelling the sale of the saccharine substance of corn under its chemical name, Glucose, we believe it would be just as fair for the same authorities to compel the sale of the saccharine substance of beet and sugar cane under their chemical name, Sucrose.

It seems simply a matter of pique. Here is a large industry developed in a few years, giving employment to thousands of people. Their product is very popular, as attested by the fact that possibly 40 per cent of the Corn Products Refining Company's goods today are going abroad and the money coming from abroad going into the pockets of the American workmen.

Public control officials of this country would do well to follow the example of the Emperor of Germany in dealing with honest business propositions and try to assist them and extend their territory of operation by co-operation and encouragement instead of pursuing a policy of antagonism as some do.

INCREASING THE FOOD SUPPLY.

EVERYWHERE there is a growing tendency to get away from the waste food habits of the past, and besides conserving our recognized food products, reach out for new foods on the one hand and create by scientific manipulation still other things good to eat.

Quite recently a man in England has discovered a method of making milk out of beans. It appears strange that such a thing could be done. But for that matter most inventions are strange when we are first made acquainted with them.

It is only a few years ago that oleomargarine was invented as a substitute for butter. While milk and butter were cheap there was no spur to prick the inventive genius to action; but with the constantly increasing value of land, of dairy herds, butter became a luxury and the necessity for a substitute was manifest. Today it would be a difficult matter to get along without the cheap substitute for butter.

During the past month another food produced has been discovered. This is smoked garfish, a food product approaching in value the smoked sturgeon. It is only a few years ago that sturgeon were used only as a fertilizer. Today, smoked sturgeon retails at fifty cents a pound. The garfish has been regarded as one of the greatest pests of our waters, devouring great quantities of our best food fishes without giving any value for the food he consumed. Last year the game and fish conservation commission of Illinois spent \$1,000 in destroying these pirates on the Illinois river alone. Now that the food value of this fish has been discovered, instead of being worse than so much waste, the garfish becomes at once a state asset. Henry V. Meetren, of the game and fish commission who made the discovery of the garfishes' value, is working with his fellow commissioners to put this fish at once in the group of food fishes.

Meat and other products of the farms have reached such a high value that any addition to the food supply will be gratefully received by the consumer.

NEW POSITION FOR J. S. ABBOTT.

J. S. ABBOTT, formerly the Texas Dairy and Food Commissioner, was born in Mississippi in 1875. He graduated from the Buena Vista College, Buena Vista, Miss., with the degree of B. S., in 1891; and from the University of Chicago in 1907, with the degree of A. B. For six years he was superintendent of the public schools of San Angelo, Texas, after which time he became teacher of chemistry in the Dallas High School, Dallas, Texas, which position he held, when in 1907, he was first appointed to the position of Dairy and Food Commissioner of Texas, by Hon. T. M. Campbell, then Governor of Texas. He was re-appointed to this position in 1909, and again appointed to the same position by Hon. O. B. Colquitt, the present governor of Texas.

Ex-Commissioner Abbott belongs to that branch of the Abbott family that settled in Virginia in early days, and afterwards emigrated down through the Carolinas to Mississippi and Texas. His father, Dr. J. L. Abbott, and mother are still living in Buena Vista, Miss. On the maternal side he is related to Henry Clay.

In the reorganization of the Bureau of Chemistry, of the U. S. Department of Agriculture, provision has been made by those in authority for a division of co-operation, or a sort of clearing house for the purpose of bringing both Federal and State Food and Drug officials closer together in the work of enforcing food

and drug laws. The Federal Food and Drug law provides that Commissioned State officials may collaborate with Federal officials in the enforcement of the Federal law. It is hoped that this new division in the department of agriculture will be able to work out plans of co-operation that will be mutually helpful and beneficial. The department of agriculture has tendered this position to Mr. Abbott and he has accepted it, and shall begin the work sometime during the first week of April.

MISBRANDED FOOD PRODUCTS.

MANY of our wise food officials are somewhat troubled to know what to do with misbranded food products seized by ample warrant of law. Goods that are adulterated and misbranded are easily disposed of, but food products that are wholesome yet not up to standard of quality cannot well be treated like goods that are clearly unwholesome.

Seizures of goods not up to standard are frequent under the misbranding law. In some instances the owner of the goods is fined on the strength of the sample taken. Meanwhile much of his goods have gone into circulation. In other instances large quantities of goods below standard are seized and destroyed.

There is at this time a great deal of food on the market that does not come up to standard. What to do with it is more of a problem than some people think it is. To seize and destroy this stuff is a simple matter.

But is this method as wise as it is simple? Food commissioners have been created chiefly for the purpose of providing better food for the people and it would appear to be the part of wisdom to do this without destroying food that is wholesome but below a fixed standard. There is the same difference between standard goods and goods that are below standard as there is between a five and a ten-cent cigar. It is all a matter of quality or value. Goods that come up to a fixed standard are certainly worth more than the same class of goods that are below the standard. One may be just as wholesome as the other.

The question is how are the goods below standard to be treated?

In these days of high prices and food scarcity it does not appear to be the part of wisdom to destroy anything in the way of food that is wholesome no matter how far it may fall below the standard. The manufacturer may be properly punished for violating the law but his goods should be saved and sold for just what they are instead of being destroyed.

At this time the country is flooded with canned tomatoes that do not comply with the standard. What to do with these goods is a very serious problem.

Under the old rule tomatoes were packed with more or less added water. Of course the more added water the lower the standard. The difference in toma-

atoes under the old rule was a matter of quality and as a general thing, a matter of price.

Under the present rule all canned tomatoes must represent whole, ripe, sound tomatoes, packed without the addition of water. The natural juice alone may go into the can.

The rule is plain enough and the packers were all advised that their goods would be regarded as misbranded if they did not comply with the rule.

It seems that many of the packers have disregarded the new rule, and have put upon the market great quantities of canned tomatoes that will not pass inspection. This is all the worse because of the large pack of last year. Standard tomatoes are to be had but in view of the fact that all tomatoes are required to be up to standard it would appear that there is no excuse for so many low standard tomatoes being on the market.

We have these goods, and the question is what to do with them. So long as we have fixed standards of excellence, and the people are given to understand that all canned tomatoes are up to standard, they should not be required to buy water for tomatoes.

And yet this great quantity of food should not be destroyed. The non-standard tomatoes are not injured by the addition of water except as to value. The watered tomatoes are simply not worth as much as the legally packed goods.

It would bother the food commissioners to pick up all the watered tomatoes there are on the market, but something should be done to give the consumer the benefit of the law. If these tomatoes are to be seized they should be put back on the market and sold for what they really are. By no means should this wholesome food product be destroyed.

CHEMISTS' MEETING.

The American Chemical Society will hold their Spring meeting at Cincinnati this year, April 6th to 10th inclusive.

The following is a list of the officers:

Theodore W. Richards, Harvard University, President.

Charles L. Parsons, Washington, D. C., Secretary.

Albert P. Hallock, Yonkers, N. Y., Treasurer.

Directors—E. G. Love, Chas. L. Parsons, Albert P. Hallock, W. D. Bigelow, Alexander Smith, William Brady, Theodore W. Richards, M. J. Bogart, A. D. Little.

NEW CHIEF AT WASHINGTON, D. C.

Mr. W. J. McGee, formerly chief of the New Orleans laboratory of the Bureau of Chemistry, has been appointed chief of the Washington Food Inspection Laboratory, which was re-established by the recent organization at the Bureau of Chemistry. Formerly the work was under the supervision of Mr. L. M. Tolman, who was chief of the Food Inspection Division, and who has since been appointed chief of the central division, with headquarters at Chicago.

NAMING THE RESALE PRICE.

At the banquet of the Pennsylvania, New Jersey and Delaware Wholesale Grocers' Association, Fred Mason, vice president and general manager of the Shredded Wheat Company had this to say on the subject of the manufacturer's right to name a resale price for his product:

You know in the nine years that you gentlemen have been organized, through friendly co-operation, through the exchange of experiences and ideas, through discussing the cost of doing business and the consequent profit that is necessary to make a success of your business that the old humbug of "price-cutting" has been almost eliminated and it has been done through friendly, honest co-operation. I believe in it. Twenty-two years ago when I was selling Pillsbury's Flour in St. Paul, Minn., I asked our people to let me fix a retail selling price on flour. It was fixed, and, gentlemen, it has never been broken. It is still up in the stores of St. Paul, the prevailing retail price, but without any "big stick" or big holler or without drawing public antagonism, and just so has it been here. There was no such thing known nine years ago in this territory as what we call "list prices." It was not the fault of the manufacturer either, because he had nothing to work with. You couldn't get together.

But since you have gotten together and discussed those things, you have relieved us of that great burden and I believe that the public will give every wholesale grocer and every retail grocer and every manufacturer, when they study these things from the experience we men have gone through a reasonable and fair profit. But when you quarrel among yourselves and try to get all your competitor's business and don't get together and talk over the cost of doing business, the public is mighty quick to take advantage of that; and can you blame them when you can't get together yourselves? Now gentlemen, our company has not had, in six months, one single complaint in price cutting in the Philadelphia territory, and we used to have 100 a week.

Now, this resale price—I have before me a pamphlet—this is a verbatim report of speeches given before the National Civic Federation by men who have given years and years of thought to this topic. Here is Mr. Bloomingdale, the counsel of the New York State Dry Goods Association, Edmund E. Wise against and William H. Ingersoll talking for the fixed resale price. Each of these men gave an address of an hour and a half. Here is a little bit of a man who is a recognized student of economics, Dr. Talcot Williams, and let's see what he says:

"The proposition is made for the restriction of the price for the manufacturer. That power can only be granted if the manufacturer will make his business so public that everybody will be certain that the restriction of price is not used in order to increase his profits beyond a fair point."

I want to tell you gentlemen it simply means this, that the present law, now before Congress, as I understand it, and as our counsel tells me, is that you cannot have Government regulation without government inspection. Do you want some fellow who has a political office drawing \$1,500 a year to come in and tell you what it costs to run a wholesale grocery business? That's what you will get if you get that kind of legislation. And he goes on further to say: "It's easy to arrive at that; we have arrived at 6 per cent as a

reasonable amount for the use of money, that any larger sum is usurious, and there is a law against it." Suppose one of these students comes out to one of your establishments and he is educated to believe that 6 per cent is the proper earning for your capital; a wholesale grocer doing a business, we will say, of \$1,000,000 a year with \$200,000 capital; I believe that the average wholesale grocer will perhaps turn his capital over five times in a year; we will say that your gross profit is 10 per cent; that your cost of doing business is $7\frac{1}{2}$ per cent; that will leave $2\frac{1}{2}$ per cent on the turnover. Every man in this room knows that this is not an excessive profit; it would give you \$25,000 profit on doing a million dollars' worth of business in a year.

But wait a minute, gentlemen. This inspector that is sent out to get at what is a fair profit for you has access to your books and comes in to Mr. Drake and says, "I want to look through your establishment; what is your capital stock?" "Two hundred thousand dollars." "How much money did you make?" "\$25,000." "Oh you shouldn't make over \$12,000; six per cent is a reasonable earning for money." Think it over gentlemen. I tell you, you don't want government regulation with government inspection by incompetent men without experience, who have not sacrificed the time and study and thought that you have given to the subject, to come in and tell you what is a reasonable profit on your goods, any more than we want it. That is my personal opinion, and it is also the personal opinion of my superiors in the company I represent.

You know when that fellow comes along, he is getting about \$1,500 a year; therefore that is his idea of what a salary is. He comes in and says "How much money did you make?" You show him. He doesn't say anything about raw material. This year it might be low and you might have good big earnings so that you can pay your dividend of 6 per cent and lay aside a surplus to take care of a market that is perhaps against you the next year. The manufacturer cannot change his price every time the raw material changes, but does that fellow understand that? Oh no; you must be paying too big salaries. "Here, what does your President and Vice President and General Manager get?" I'm interested in that more than anything else. (Laughter). "And what do the heads of departments get and what do your sales agents get?" And when he finds out that perhaps they are making more money than he is making, it's all wrong, and the price of that commodity should be eight cents instead of twelve and a half cents on the grocer's shelf. And who would suffer? Not only the jobber who would be getting 10 per cent on only \$2.50 a case, or 25c a case, but the retailer who would be getting much less if he got his profit on 8c a package instead of $12\frac{1}{2}$ c.

These are serious problems and I want to congratulate this organization on not passing any such resolution. The beauty of the Pennsylvania, New Jersey & Delaware Wholesale Grocers' Association and of the National Wholesale Grocers' Association is that in all these years the government cannot point to one thing you have done in restraint of trade, in violation of trade, in violation of the Sherman Anti-Trust law, and don't place your manufacturing friends in a position where we are going to be inspected and you are going to be inspected by a lot of students that don't look upon this matter from the experience you and I have had. (Applause.)

Notes on Food, Drug and Sanitary Inspection

By GEORGE B. TAYLOR, B. S.
STATE ANALYST OF LOUISIANA

INSPECTION.

THE STANDARD of all departments whose duty it is to protect the public from frauds in foods and drugs, as well as to preserve the public health, must rest upon the thoroughness of their inspection service. Without efficient inspection the work is handicapped at the start. Incompetent inspectors will do more to lower the grade of work done than any other single thing.

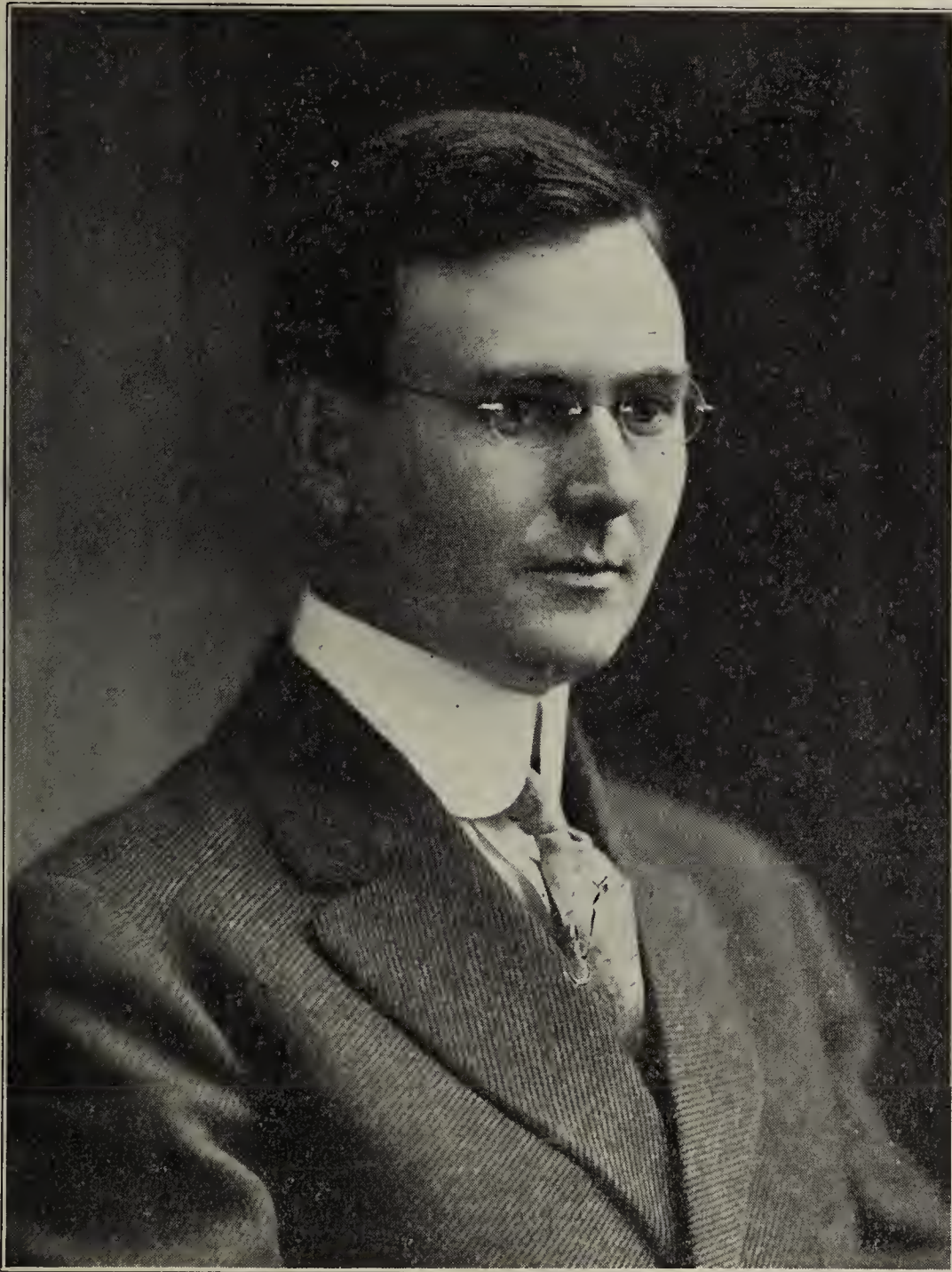
Primarily, therefore, must be the necessity of employing good men and efficient men, men thoroughly honest, with aptness for work. To get this kind of man, careful selection must be made. Politics should play no part in the selection of any food control or sanitary officer. Unfortunately, however, most of the states regard such positions in the nature of political appointments. This is especially so when it comes to the appointment of inspectors, as the importance of the position has not had the consideration it deserves. The United States Government and a few of the states appoint these men through strict civil service examination. This is the only way by which the best work can be done. The inspector must be one who can command respect. He is the only member of the food control department who has intimate relations with the dealer, and the department is judge by the class of inspectors employed. The inspector should at least have the equivalent of a high school education. He should know enough chemistry to apply simple chemical tests; he should have some knowledge of pharmacy. When sanitary inspection is carried on in connection with food

and drug work the inspector must have some knowledge of bacteriology and should know something of preventive medicine. If possible, it is better to have specialists for each line of work. When a food and drug department is under the jurisdiction of the state board of health, sanitation in food and food supply places is imperative. In each department there should be the following inspectors: A physician who has specialized in preventive medicine and bacteriology, a pharmacist for drugs and drug houses, a veterina-

rian who knows meat inspection and sanitary dairying, who is capable of testing for tuberculosis in cattle, and who is able to detect disease in animals, a food inspector with some knowledge of chemistry, and a sanitary engineer who is capable of dealing with water supplies and sewerage systems. A corps of inspectors like this can furnish an abundance of work for a well equipped and well manned chemical and bacteriological laboratory.

In the first place, an inspector must be a type of man who can give standing and dignity to the cause he represents. He must have common sense and tact. There is no reason in an inspector making an enemy of every person whose business he inspects. He must be

fair, courteous and truthful. Unless there is some special reason, the inspector should state his business and give his name and official title. The inspection of places of business or manufacturing plants should be with the complete knowledge of the owner or superintendent. The refusal to allow an inspector entrance to an establishment or any interference with his duties



GEORGE B. TAYLOR, B. S.,
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renders the owner liable to the law. Whenever tact and courtesy are observed, there is very seldom any difficulty found. It is best for an inspector not to give himself wholly into the hands of a factory guide, for there are a great many things which the guide will not allow him to see. On that account, an inspector must know the general principles and conditions of the business he is inspecting.

Publicity is one of the greatest factors in bettering conditions. An offender dislikes publicity more than being proceeded against in the courts. An excellent aid in enforcing all regulations is to publish the results of inspections in the local newspapers. That will get results when other means fail. After a town or community is inspected, a resume of this work should be prepared, made interesting, and put so that the average reader can understand the report. Exaggerated and sensational reports should not be tolerated. It pro-

something unforeseen and more important turns up. Of course it is important that these plans should not be made public. The inspector himself may be kept in ignorance of the general outline of work. It is well, however, in inspecting a community or a town, to be thorough, to cover all kinds of conditions in food and drug supply places. After such an inspection is completed, a reinspection after a short time is almost imperative. This will show the results obtained and will point out what action to take. Whenever conditions have not been improved, prompt action should be taken in the courts. Publicity should be given at this time.

Regarding the prosecution of all offences, a great variety of opinion exists. Some officials believe in prompt action against all offenders through the courts; others believe in extreme leniency—in correcting abuses, if possible, without the process of law. The



HEALTH TRAIN, LOUISIANA STATE BOARD OF HEALTH.

notes injustice, and the reaction is sure. The results can be accomplished with a plain statement of facts, which can be proved before a court. It is a bad practice to allow an inspector or any other official to feature his name in newspaper reports. This will cause jealousy and ill-feeling in the department. It has the tendency to cause the official to feature unimportant matters and to provide sensational statements in order to see his name in print. When an inspector does some work of exceptional merit, it may do him and the service good to publish his name along with the results; but as a rule anything published should be to show the work of a department, and not the work of individuals.

In planning the work of inspection for a whole state, it is well to have a definite scheme in mind. As a rule, a system of inspection can be planned for months ahead; and this plan should not be changed unless

best plan is perhaps a compromise between the two. Willful and fraudulent violations should be promptly and vigorously prosecuted and wide publicity given. Conditions detrimental to the public health should be promptly eradicated. As a rule, whenever a violation is the result of ignorance or mismanagement, some leniency should be shown. But the offender should be advised and warning should be given that prompt action will follow any repeated violation. This does not mean that ignorance can be regarded as an excuse when through published statements an offender should have known the law.

In state work, especially when sanitary inspection goes hand in hand with food and drug inspection, it is well whenever possible to cover thoroughly a town or territory. Piecemeal work does not give the results that thorough inspection will give.

An inspector should never herald his approach into

a town or community. He should appear when he is least expected. At best his presence will be known within two days after his arrival in a community, and the general average of the sanitary condition of the place will rise. Some work must be done before the inspector's presence is known, or this part of the service will amount to nothing. It is always best to follow a general plan. For instance, the sampling of milk from dairy delivery wagons on the streets should be the first work of an inspector.

The following is a general plan of work which may be varied to suit conditions:

1. Dairy wagons on streets.

(1) Lactometer reading and temperature of milk.

(2) Sampling for bacterial analysis.

(3) Sampling for chemical analysis.

(4) General conditions.
2. Dairies.

(1) Score.
3. Milk plants and stores.

(1) Score.

(2) Sampling milk.
4. Markets.

(1) Score.

(2) Meat, fish and vegetable inspection.

(3) General sanitary condition.
5. Slaughter houses.

(1) Score.
6. Grocery stores.

(1) Score.

(2) Food violations.

7. Hotels and restaurants.

(1) Score.
8. Miscellaneous food supply places.

(1) Score.
9. Drug stores.

(1) Score.

(2) Drug violations.
10. Public buildings.

(1) Score.
11. General.

An inspector should be provided with a metal badge. Besides this, he should have proper written credentials. Bogus inspectors wearing badges have appeared in almost every part of the country, have made bogus inspections, and have collected graft money.

In case it is demanded, the inspector must be able to give convincing proof of his identity.

Sanitary inspections are best carried out by means of score cards. These make all inspections thorough and uniform, as well as furnishing simple means for keeping records.

In food or drug inspection, where samples are bought for examination or seized, special data must be prepared. As work of this kind must bear the test of litigation, detailed and accurate data must be compiled. This should be thoroughly impressed upon the inspector, although his first experience as a witness will give him abundant proof of this.

Most states, in collecting and compiling data on samples, follow the system of the United States Inspection Service. The system as used by the Government inspection is given below:

Inspector's description of sample.	I. S. No. 11927E	BUREAU OF CHEMISTRY.
Substance	Inspector.....	I. S. No.
Label on retail package.....		11927E
.....		
Label on shipping package.....		BUREAU OF CHEMISTRY.
.....		I. S. No.
.....		11927E
Manufacturer		
(Name.)	(Address.)	BUREAU OF CHEMISTRY.
Collected on.....at.....a. m., p. m.	Price paid.....per.....	I. S. No.
Delivered to.....on.....at.....a. m., p. m.		11927E
8-600	(Express company and place, or individual.)	

(FORWARD TO BUREAU OF CHEMISTRY AT ONCE.)	I. S. No.
I. S. No. 11926E, 191....	Quantity
Substance,	
To whom sent,	Available for SEIZURE, in possession of
.....	
Date received,	
Date reported,	
Inspector's description of sample.	Date
.....	
8-600	Inspector. Inspector's initials

(DEALER'S RECEIPT.)

Date. I. S. No. 11927E

RECEIVED of, Inspector, \$

in payment for sample of

which can be identified by of this firm with shipment

from ordered

(Name and address.)

through and covered by submitted { copy of }
(Broker or agent.) { original } invoice

dated and shipping memorandum dated, issued by Pro. No.
(Common carrier.)

Status of firm

(If corporation, give names of officers and under laws of what State incorporated. If partnership, give names of individual members.)

., Dealer.

Remarks:

.

8—600

INSPECTOR'S REPORT ON COLLECTION OF I. S. No.

Substance Inspector.

Label on retail package

.

Label on shipping package

. { Other samples }
. { same shipment } I. S. Nos.

Manufacturer (Name.) (Address.)

Collected on, at a. m., p. m. Price paid, per

Delivered to, on, at a. m., p. m.
(Express company and place—or individual.)

for transportation to Laboratory.

Shipper (Name.) (Address.)

Dealer (Name.) (Address.)

Salesman Identified by

with shipment covered by submitted original copy of invoice dated, 191

issued by (Vendor.) (Address.)

and original copy of, dated, 191, issued by
(Form of shipping memo.) (Common carrier.)

Pro. No., showing shipment from

Sample taken from consisted of
(Shelf stock, warehouse, special order.)

.

Prepared in following manner:

.

State seizure action, if any, on shipment

Brief statement of handling product since delivery to dealer

.

. Inspector.

THE SCORE CARD SYSTEM OF INSPECTION.

During the last few years a system of inspection by the use of printed cards has been adopted almost universally. This system is called the score card system of inspection. Questions or phrases emphasizing important phases of a food industry are printed on cards, a space being left in order that the inspector might fill out these points. A good score card will cover the salient parts of a food industry, giving information which will convey correct ideas as to the status of this industry from a sanitary standpoint. The cards when filled out are graded. In this way accurate comparisons may be made among large numbers of food supply places. The grading may be done by numbers—that is, on the percentage scale—a perfect score being 100. It may also be done by using such appellations as Excellent, Good, Fair, Poor, Bad. The percentage system has worked exceptionally well in dairy inspection; and in some places this system is used for all food supply places. The advantages of this system are that closer scoring may be done and that small differences between the sanitary condition of food supply places may be noted. On the other hand, it is difficult to make the manager of the place inspected understand this system; and when results are published, numbers always require explanation. Again, unimportant points may be given the same value as important ones, and fictitious results obtain. By wording the results, the same accuracy will not result; but, on account of the simplicity of this system, the owner can comprehend instantly the score of his place, and know how to correct insanitary conditions.

The score card system is valuable in that uniformity results. Before the adoption of this system, where there was nothing uniform upon which to base reports, two inspectors, unless working together, would always differ on the condition of the place inspected, and one inspector could not well compare two or more places of the same kind. The score card system has remedied this. Inspectors have the same observations to make, and well trained men will nearly always arrive at the same conclusions. Comparisons between food supply places may be easily made. It is not an uncommon thing for well trained dairy inspectors working independently to score within two points of each other.

As the cards are uniform in size, the records may be kept permanently in a card index system.

To use this system intelligently, an inspector must know what constitutes insanitary conditions in food supply industries. He should have a general knowledge of the industry he is inspecting. By all means he must know the rules of general sanitation, and must be familiar with the sanitary ordinances and laws. Constant study of the sanitary laws and the food and drug regulations of a state or municipality must be encouraged. On this account, a system of score cards should be arranged, worded so that familiarity with the sanitary laws is required. Questions such as these:

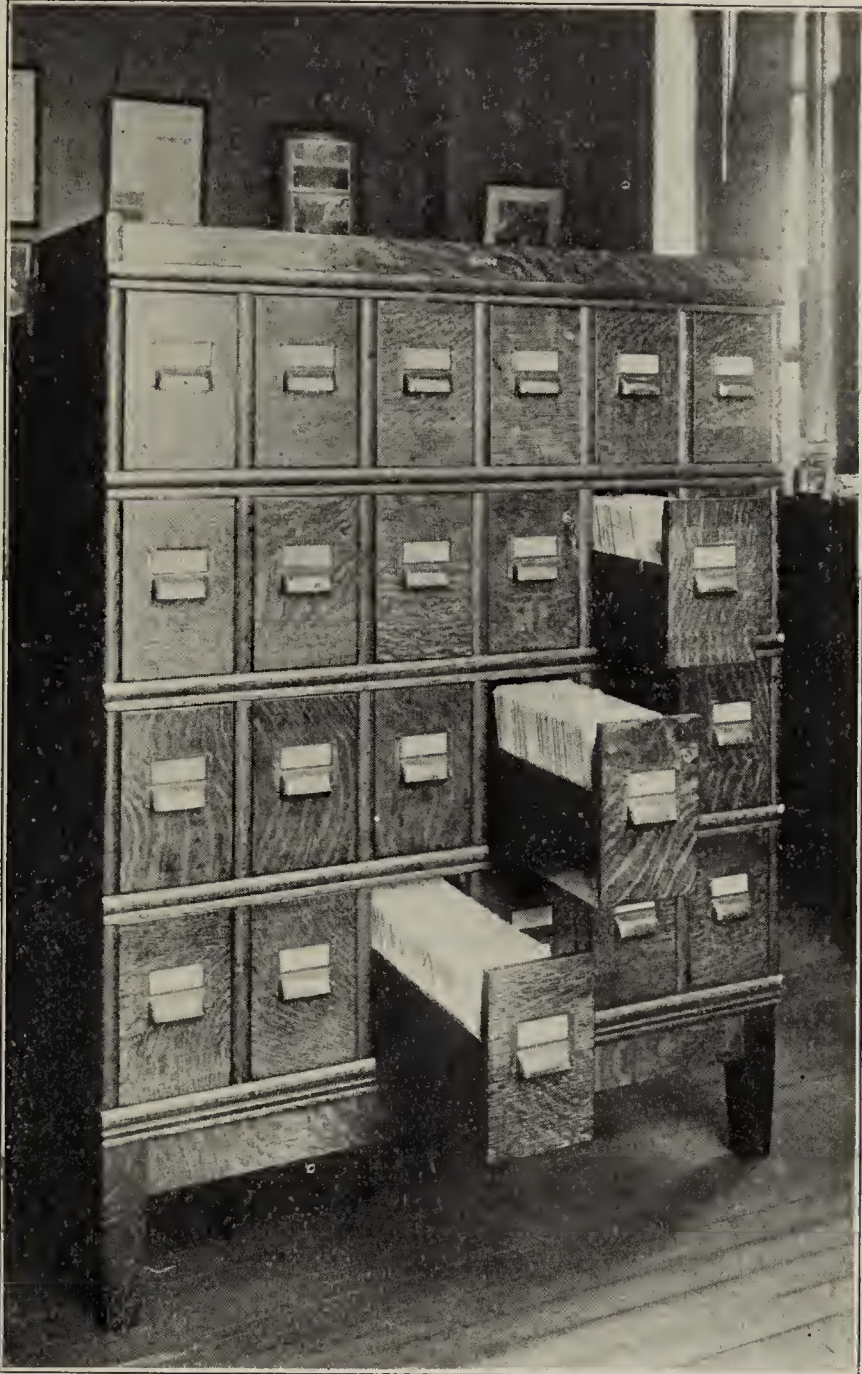
- Are the floors clean? _____
- Are walls and ceilings clean? _____
- Are goods protected? _____
- Are employes neat? _____

can be answered with a "Yes" or "No," and no knowledge of existing sanitary law is required. How can these simple questions be changed in order to make an inspector use his mind? In the round of inspections, an official can not always be expected to hunt for the regulation covering every point. The score card should be arranged to point out the particular

sanitary requirement for that particular industry. The above questions can be changed as follows:

- Floors (Reg. No. —) _____
- Walls and ceilings (—) _____
- Protection of goods (Reg. No. —) _____
- Employes (Reg. No. —) _____

In this way an inspector can not use the card unless he is familiar with the sanitary regulations. On the other hand, the particular rule covering this point is



SCORE CARD FILING SYSTEM.

given, and very little time and trouble are required. By means of this an inspector becomes familiar with the laws.

Cards should be uniform in size, yet it is well to have some distinguishing feature for cards of different kinds. This can be arranged by a color scheme. If scores are made of six different kinds of food supply places, six different colored cards should be used.

Score cards need not be limited to food supply places. Such places as drug stores, barber shops, railroad stations, municipal buildings, etc., may be scored. Where the food and drug departments are a part of the state board of health, all scores may be filed together in one large system. Louisiana has score cards on the following:

Dairies, city milk plants, stores handling bulk milk, hotels and restaurants, groceries and meat markets, slaughter houses, bakeries, confectioneries and ice

cream factories; miscellaneous food supply places: such as oyster houses, pop factories, etc., drug stores, barber shops, schools, municipal buildings, general sanitary surveys of towns and miscellaneous sanitary inspections.

It is always well to reserve plenty of space on the card for remarks. In the Louisiana system, under "Remarks," is added, "Use back of card." This gives plenty of space without taking away from specific points.

After an inspection by score card, the next thing for an official to do is to cause deficiencies to be corrected. Where large numbers of inspections are made, individual letters take up too much time. It is advisable to print a form on a regular letterhead giving a fac simile of the blank score card. Points to be corrected may be blue penciled, the statement made that these are deficiencies which must be corrected within a limited time, and the form signed by the official in charge. This saves a great deal of time. It is well to have a special filing card index system for score cards. As the owner of a food supply place is held responsible, and as he is prosecuted in the courts, cards should be filed under the owner's name, instead of a trade or corporation name. If a corporation, the president's or manager's name should be used. In covering a state this system is rather difficult. To simplify this, it is advisable to have first the names of the counties in the state. Each county should have a forty or eighty-card index, depending upon its population. A card would then be filed first by place (county), then by the name of the owner or responsible person in charge of the industry.

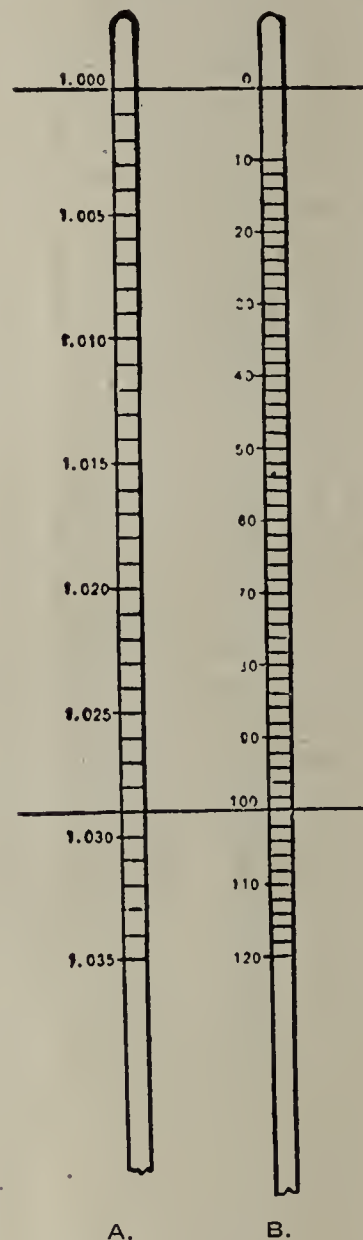
DAIRIES AND MILK SUPPLY PLACES.

From a public health standpoint, the inspection of milk supply industries and the examination of milk are of paramount importance. Most municipal health departments have at least some inspection service and laboratory equipment whereby they can to some extent look after the milk supply of the city or town. However, in a state only a few of the largest cities are completely equipped for coping with the milk question, and in most places the aid of the state department is necessary. The inspector should therefore be prepared to make preliminary tests of the milk, to take proper samples, to score the dairies, and to advise the dairymen.

The inspection of the milk supply should be the first duty of an inspector on his arrival at a place. This work should be well advanced before the presence of the inspector is generally known. He should therefore inspect the milk at the time of its delivery. This will necessitate the stopping of milk delivery wagons on the streets either in the early morning or late evening, depending, of course, on the particular hours of delivery. The inspector should be equipped with a proper sampler or a long-handled dipper for mixing the milk, as well as for taking samples. He should have a thermometer, a lactometer for determining the specific gravity of the milk, and an eight-ounce sample bottle. If bacterial examinations are to be made, specially prepared sterile pipettes and sterile test tubes or bottles in iced containers must be at hand. Special containers for collecting milk are furnished by the leading dealers in bacteriological supplies. Inspectors who take milk samples for bacterial analysis should be well enough versed in bacteriological technique to take samples under conditions in which contamination

is absolutely avoided. Special training is necessary for this.

Before taking samples or making preliminary inspections of the milk, the following information should be obtained: Place, date, time, name of dairy, name of owner, name of driver, painted words on delivery wagon and price paid. If the milk is in bottles, one representing the average conditions should be selected and the contents well mixed. Carefully avoid any churning of the milk or any rough mixing which would have a tendency to break up the fat globules. When the milk is in cans, the dipper or sampler may be used for mixing. The milk may also be mixed by allowing it to run into a container and pouring it back into the can. This should be repeated four or five times. After



A. Specific Gravity Hydrometer.
B. New York State Lactometer.

the milk is mixed the temperature should be taken by means of a Fahrenheit thermometer prepared for this purpose. A self-registering thermometer is of advantage. The specific gravity of the milk should then be taken. A common form of hydrometer and one which is most useful for testing milk for adulteration either by skimming or by the addition of water is here shown.

Instructions for using the milk hydrometer:

This hydrometer is divided into 120 equal parts. Between 0 (water) and 100 (pure milk) are 100 divisions. If this hydrometer is put into pure milk, the scale should indicate 100 or slightly above; if it is put into skimmed milk, it should indicate 120 or over; if it is put into water, the scale should indicate 0. Between these two figures 0-100 are figures by ten, denoting percentages of pure milk.

Thus, if put into so-called milk, the hydrometer

Special attention has been given above to the examination and sampling of milk for chemical analysis. It must not be understood from this that chemical analysis is of more value than bacterial analysis.



In a state department, however, where a great extent of territory is to be covered, it is a great many times impractical to make bacterial examinations. The distance in time to the central laboratory is sometimes too great to send a sample of milk for bacterial exam-

ination. A field laboratory is of importance, but this is of course very limited. Considering the many chances of error in making bacterial examinations, it is doubtful whether a field outfit is of much service. In this regard it is advisable to have inspectors for sanitary dairy inspection alone. They should be trained, preferably graduates from agricultural colleges. They should collect samples, make field examinations, score dairies and advise dairymen. Even if bacterial examinations are made, the necessity of visiting dairies and grading them from a sanitary standpoint is of primary importance. This can be done correctly only by means of the score card system of dairy inspection, adopted universally among progressive health boards.

After the collection of samples and a general consid-

added that the inspector must know his business. He must also be practical and be able to instruct along practical lines. In one dairy of our experience the inspector inspired very little respect until he demonstrated his ability to milk a cow better than the dairyman himself. The inspector should score the dairies in the presence of the owners or managers. He should explain his score and his reasons for the score as it is made. He should show how a larger score could be obtained and the improvements to be made.

In this connection, valuable results will be obtained by giving the dairyman a copy of his score and leaving with him some blank score cards. In this way the dairyman will be able to check his own shortcomings



PART OF DAIRY EXHIBIT, HEALTH CAR, LOUISIANA STATE BOARD OF HEALTH.

eration of the market milk of a town, it is well for the inspector to visit all the dairies of the community, in order to score them. Whenever time permits, all dairies should be graded while the milking is in progress. be added that as a rule a dairy graded while milking is In this way, all information is of first hand. It might going on will score a few points below the score made at other times.

In dairy inspection, the first rule is to get and keep, if possible, the good will of the dairymen. By this method only will lasting value result. It need not be

and correct them. He should be advised to install proper equipment—not necessarily expensive; and be shown that a spring balance and a milk fat tester are necessary for the economical production of milk. The dairyman should be made to see the sanitary production and handling of milk from an economic standpoint, and not alone from a public health view. If he can be shown that it is to his interest to produce pure milk, there will be no more trouble for the health authorities.

(Continued in next issue.)

Training for Homemaking

GIVEN AT THE CHICAGO ASSOCIATION OF COMMERCE ON WEDNESDAY, MARCH 25TH, BY
MRS. LYNDEN EVANS, PRESIDENT OF THE BOARD, SCHOOL OF DOMESTIC ARTS AND SCIENCE

THE discussion of training for homemaking is difficult because so much of this art is of the spirit and heart that we have failed to separate and recognize its economic value. It is to this latter phase that I shall confine myself.

The total number of women in the United States above 15 years of age is approximately 30,000,000.

The total number of married women, 17,000,000, or 58 per cent.

The total number of homes, 20,000,000, averaging 4½ persons to each home.

These homes consume 75 to 95 per cent of the wealth of the country.

Each home has some kind of a home-maker, good, bad or indifferent. There is no other single occupation which claims so many workers or directs so large an expenditure. Economists inform us that in incomes ranging from \$1,500 to \$4,000 75 per cent goes for the three fundamentals, shelter, food, clothing. And yet this large army of workers has no place in the census.

The activities of the home have changed, and it is no longer the center of production but the center of assimilation. In the old times woman produced the clothing and understood the processes from cloth making to garment. She saw and assisted in all the processes of food production. The child growing up was familiar with all these things. Today she lives in an age when she must understand the plumbing if she would avoid the doctor, when food and clothing come to her door and she is quite ignorant of how they arrived. Men spend their lives on special phases of this matter, one seeking to understand meats, another fabrics, a third sanitation, and yet because the former generation learned of their mothers we are expected to know intuitively all these things in which you specialize.

With the processes of production passing from the home to the factory about 19 per cent of our women have followed them. Yet, we have a large majority still in the home, but practically non-producers. This contributes to the higher cost of living and to the unrest among women.

These changed conditions have been interpreted as meaning that we were no longer needed in the home, but adulterated foods and fabrics, false values, the revelations of hygiene, are all eloquent of the demand of the day that the homemaker be educated for her work. She used to regard typhoid as a visitation. Today she looks well to her water supply, and the dread consequences of mal-nutrition in the child—rickets—are avoided through a knowledge of foods. Truly, gentlemen, you demand wonders of our intuition if you expect us to know all of these things without education.

Students of economics have established the fact that a woman's greatest economic value is in the home. Workers among women pensioned by the state report that the woman who understands her job and stays on of the amount required by the woman who uses her gives her family health and comfort on 50 per cent

energy earning money outside the home.

Mrs. Richards has pointed out that the family lives on the money brought in plus the work performed without wages in the home. If a man earns \$1,500 and the woman performs labor which would cost \$800 the family lives on \$2,300.

Failure to recognize this has belittled the occupation of home making and the procession of production have gone where they had a wage value, and women have followed them. Their desire to measure ability by financial value is a marked thing among the girls of today, the necessity of producing in the home leading to a new education.

Homemaking calls for varied ability. Homemaking holds high creative opportunity.

When men recognize definitely the economic value of the trained homemaker she will eagerly earn her living in the place where she is of the greatest value, the home. This, however, means efficiency, and efficiency means education and training. The instinct of the little girl is toward helping in the household processes. Develop this and they remain a joy. Crush it and they become drudgery, hardship.

History of home economics cannot be sketched here. I shall confine myself to one small group. In the later nineties of the nineteenth century a small group of women studied the labor market for women through the medium of an employment office. The result was the contrast between labor in the business world where certain standards have been worked out and the domestic field where all was chaos. This led to the belief that in the domestic field education was the only hope.

At that moment Armour Institute gave up coeducation. Its Household Arts Department was taken over by a group organizing the School of Domestic Arts and Science in 1901. Courses have been carried on in the technique of homemaking, cookery, sewing, dressmaking, millinery, marketing, discussions of many problems of homemaking, pure foods, care of the child. Exhibits have been arranged, medals have been given to employees completing five, ten, twenty, thirty, forty, fifty years in one household. We have sent teachers to hospitals, carried on classes for business women in the evening, taught in settlements. We have established a training department where young girls who would otherwise go into factories are able to earn their way through school. A luncheon room open to the public is supplied from this cooking laboratory. The School of Domestic Arts and Science last year reached 2,100 women.

We had an annual turn over last year of approximately \$35,000. Of this \$2,500 had to be raised in donations. The rest was met by incomes from earning membership and endowments. All sorts and conditions of girls have studied with us.

Under this training food becomes not a medium of self-indulgence but a medium of efficiency. The wrongly fed child leads to the inefficient man.

Under this training clothes become a medium of self-expression, not a mere matter of the check book.

Under this training income divides into the proportion of expenditures which mean contentment.

"That woman is content who can sit comfortably in the presence of her account book."

The school has outlived the time when this is called a fad.

It is crippled for room.

It needs a center—a permanent home—and is working for it.

Art has its center. Music has its center. The home, which assimilates from all these, must have its center.

This center must be in the heart of our city. It must be an inspiration to every woman entering it. It must gather up and show how to assimilate all that art, science and invention are doing for the home. Let us create a center which will show homemakers the way. Let us create a center which will draw homemakers to Chicago as the city where they can find the modern expression of the old, old need in concrete practical form.

We have no criticism of women wanting to follow other callings, but we believe that the vast majority of women today are eager to serve in their own field. For my part I don't want to do what a man can do. I want to do what a man can't do, to save his life.

We no longer feel that ignorant love can serve as intelligent love can serve. Is it fair that the young man working to establish his own home should have to turn himself into an experiment station? Is it fair that the young girl should face a task for which she is unprepared? Is it fair to the helpless child?

And now for your part. Efficiency is the modern demand. It rests with you to encourage and develop efficiency in the home. You demand efficiency in those helping you earn your income. Why not encourage it in those who spend that income?

Gentlemen, we want your sympathetic interest in developing this work which women love best and God grant may always love best. Will you not encourage your wives in the discussion of these problems? Will you not encourage your daughters to study? Will you not urge your sweethearts to prepare? A woman should be prepared to administer a home as much as a man should be prepared to support it.

The School of Domestic Arts and Science offers a practical method of attaining this end. Can we not all work together to develop a center where each generation can work out its own adaptation of conditions and through all the changing forms maintain in spirit the home "that mother used to make?"

THE DATE ON THE LABEL.

BY O. G. MCGLASSON.

A law requiring the month and year when canned fruits, vegetables and fish are packed to be placed on the can or jar will serve no good, but will cost the consumer a great deal of money. Milady wants the newest thing, be it canned goods or dress goods—that's human nature—we must have the latest to be in style. It has been shown beyond the question of any doubt, by practical laboratory tests, conducted by the Bureau of Chemistry at Washington, that canned fruits, vegetables and fish are just as wholesome and healthy the second, fifth or tenth year, as said goods were the first year packed.

Spoiled canned goods are occasioned by some defect in processing and the spoilage will show itself plain, as a puff springer, or bulge, within a few weeks or months

after being packed. If the contents remain good for one year, they will be just as wholesome for five years. This is a fact and a fact should be accepted, even if you are prejudiced. So many unjust and slanderous things have been said against canned foods that ninety-five per cent of the consumers have a fixed opinion and it will take time and much education to show how clean, healthy, wholesome and economical canned foods are. At a meeting of the Chicago Wholesale Grocers and Brokers, last year, Mr. R. J. Roulston, canned goods buyer for McNeil & Higgins Co. produced two cans of corn, both packed by the Elgin Packing Company, one in 1913 and the other in 1893. The two cans were cut in the presence of all, contents examined by over fifty experts and it was unanimous that the can packed twenty years ago was just as sweet, pure and wholesome as the one packed less than a year.

It is a well-known and accepted fact that many canned goods improve and are better after being packed for a year—this particularly applies to canned salmon and fish. Reputable manufacturers and canners, of food articles have shown a willingness to aid in the administering of food laws and have cheerfully conformed to all reasonable and sensible rules and regulations, but a law requiring the date, foods are packed placed on the label, would be impractical and not good, common-sense. It is simply absurd in the first place to think that the packers could gauge their business, so as to pack just a year's supply. Nature is a stern mistress and in some seasons is lavish in her supplies, and then man must husband and conserve, by canning the excess supply, so that they may be used months and years after. The consumer is now paying, caused largely by the conditions forced upon the jobber and the retail grocer, quite enough for the necessities of life, and to put this added expense on the consumer without any common-sense reason, would be unjust and extremely unwise on the part of any state or the National Government. We cannot get away from the immutable law that supply and demand regulates the price of foods. When the markets offer plenty of any one kind of food, the wise retailer buys at the right price, such quantities as he thinks best, often more than a year's requirements. One would naturally expect the housewife to think the lawmakers knew that it was to her interest, requiring the date on label and she would feel that she owed it to herself and family to demand the "very latest thing" in canned goods; this would make it necessary for the retailer to buy his goods on guaranteed sale or sell last year's pack for less money which would compel both the jobber and retailer to ask more from the consumer for new goods to cover this loss. Do not think for a minute that this added expense is not borne by the consumer, for it, with all other expenses connected with the manufacturing, canning and handling of food products is certainly part of the cost of same.

It is true that health is worth more than anything and if one will show a single instance where health will be bettered by dating labels then there would be some common sense in the proposition, but this cannot be done by any competent authority.

Mr. Wm. H. Harrison has been appointed collaborating chemist for the Bureau of Chemistry, Department of Agriculture for the State of Illinois. Mr. Harrison succeeds J. C. Johnson and is State Chemist under Commissioner W. Scott Matthews.

Late Studies in Coffee Making

BY WILLIAM W. KENNEDY.

THE enormous sale of coffee substitutes, fillers, compounds and cereal coffees on the American market has awakened the coffee men of this country. After much serious and concerted thought on this matter, they have concluded that the largest reason for the inroad of coffee substitutes into the legitimate sale of our time-honored beverage has been the continued application of wrong methods by the average housewife in the brewing of our American breakfast drink.

When one thinks of the amount of careful thought and expert ability that is put into the buying, roasting, blending, and marketing of uniform qualities in coffee, it seems a shame that the final methods of extracting the valuable and pleasing virtues from the product should be so lacking in uniformity, so unscientific and haphazard.

Coffee cannot withstand the false libels and the persistent attacks by means of advertised half-truths made against it unless in defending itself alone, it can present its best front, so to speak. It cannot itself demonstrate its intrinsic merit when ill-prepared.

A year or so back the National Coffee Roasters' Association, in convention, appointed a committee on "Better Coffee Making" to make a study of conditions and recommend, if possible, something to ameliorate the aforesaid state of affairs. This committee, of which Mr. Edward Aborn of New York was chairman, went into the subject very thoroughly and after considerable correspondence with roasters, grocers, domestic science institutes, housewives and governmental bureaus, settled down to the actual cup testing and chemical analysis of different brews made by several standardized recipes.

First of all it was demonstrated that the ease of extraction of the virtues of the coffee is directly proportional to the fineness in the grinding. In other words, grinding, not cooking, obtains the strength. This fact is very patent when one considers that the structure of the coffee bean consists of myriads of infinite cells each containing the characteristic flavoring oils. These are broken down by fine grinding and readily yield their values to the infusion. Furthermore, when finely pulverized, it requires less coffee to yield a given amount of extract. It is vitally necessary, however, that when pulverized coffee is used, that it be freshly ground just before using because it deteriorates very quickly. This necessitates a home coffee mill. There are a number of makes on the market at a very small cost which do satisfactory pulverizing.

Another important fact brought out is that water at the boiling temperature 212° F. is twice as efficient in extracting color, and more so in extracting flavor from the coffee, than water at 150° F. While the caffeine and caffetannic acid (coffee tannins) are dissolved in cold water, the flavoring oils require the boiling temperature to be extracted efficiently from the bean.

The following four methods of brewing were studied both by cup tests and chemical analyses of the resultant liquors. The analyses were made under the direction of Dr. Willcox of "The Scientific Station For Pure Products."

RECIPES.

Recipe No. 1—Boiling: Coffee placed in cold water; brought to a boil; boiled five minutes. Settled with a dash of cold water. Poured off. Medium granulation used.

Recipe No. 2—Steeping: Coffee placed in cold water and allowed to come to a boil. Taken off. Settled with dash of cold water. Poured off. Medium granulation used.

Recipe No. 3—Percolator: Printed directions followed. Different timings of the process tried. Fine granulation used.

Recipe No. 4—Filtration: Place pulverized coffee in a close mesh muslin bag and pour through it water at the boiling point (not repeating the process).

BOILED COFFEE.

The brew from this method had the least to commend it. The liquor changes in color to a muddy infusion high in caffeine, tannic acid, and dissolved fibrous and bitter matters. Many have thought that continued boiling brought out of the coffee the essential virtues, but, in reality, beyond the first minutes of boiling, this process volatilizes the valuable aroma and flavor, and takes on bitter principles and those that are undesirable.

Most of the deleterious physiological effects attributed to coffee have resulted from dissolved tannins due to excessive boiling or to the use of coffee grounds used a second time mixed in with some fresh.

THE STEEPING METHOD.

This method produces a brew better than the boiling or percolating methods, but not so aromatic as by the filtration scheme. The extraction occurs mainly just as the water boils, for the soaking in cold water is practically valueless.

The steeping, as seen by the following tabulated analyses, produces a liquor containing the least caffeine, and a medium granulation is the most suitable for it. Where the stimulating effect of the caffeine seems to bother one, this method is to be recommended. But usually the caffeine acts as a valuable digestive aid, as shown by some late researches in the London Lancet, and the trouble is usually due to the dissolved coffee tannins.

PERCOLATOR METHOD.

The committee made a study of several types of percolators and followed the printed directions of the manufacturer. It was found that the highest temperature of the percolating water was not over 150° F. and generally less than that. The apparent vigorous boiling and ebullition is caused by the sucking action of vapor condensation. Therefore, it is readily seen that there cannot be much brewing efficiency in the spray that is percolating through the coffee. The claims made for percolators, are, that since the water does not boil, it extracts all the virtues and no coffee tannins and loses no aroma. The chemical analyses given below refute this claim and show a very high caffeine and tannic acid percentage. Comparative cup tests of percolator coffee bear out these conclusions for the liquor is lacking aromatic flavor

and color and pronounced in its tannic taste. More coffee is required than by the filtration method.

THE FILTRATION METHOD.

In this method the coffee, in its most efficient brewing state (i. e., pulverized) is placed in a close mesh muslin bag and water at the boiling temperature is gradually poured through it but once. This method by cup tests with skilled and unskilled tastes produces the purest quality of brew and uses the least amount of coffee. Filtration develops the real aromatic flavor and brings out the distinctive characteristics of the different varieties of coffee strikingly. Its purity to the taste is accounted for by the low tannin content (.29 grain per cup) as compared with the boiled coffee (2.40 grains) and the percolator product (2.90 grains). Water at the boiling temperature and fresh, finely pulverized coffee are essential to the success of this method. There are some coffee pots on the market that utilize this principle.

RESULTS OF THE EXPERIMENTS.

Recipe No.	%	Caffein, Caffetannic Extract, (grains acid, (grains per cup). per cup).	
1—Boiling, medium...	2.63	2.58	2.35
2—Boiling, pulverized..	2.76	3.72	2.41
3—Steeping, medium..	2.42	0.58	2.31
4—Steeping, pulverized	2.58	1.75	2.35
5—Percolation, 3 min..	1.85	2.86	2.21
6—Percolation, 5 min.	1.86	2.91	2.9
7—Filtration, pulverized	1.51	2.22	0.29

Eighty grams of coffee and 750 cc. water were used in obtaining the above results.

A survey of the entire study warrants the conclusion that physiological effects in coffee drinking may be controlled by choosing the method of brewing and thereby, obtaining low caffein or low tannin as desired. Those who complain of any disagreeable effects would undoubtedly end their troubles by recourse to the filtration method. If they cannot drink this product, they cannot drink any natural coffee. The housewife is cautioned also to have some accurate measure to deal out her daily amounts of coffee and not depend on any kind of a spoon and variable sizes of cups.

The coffee roasters, through trade channels, intend to educate the grocer and the general public by some condensed conclusions from this study to the end that the American consumer will want more coffee because of his new knowledge and regained taste for this world's cosmopolitan beverage.

SCIENTIFIC BREAD MAKING.

(From Our Special Correspondent, Washington, D. C., March 30, 1914.)

At the Bureau of Chemistry, Department of Agriculture, there is a laboratory of unusual interest which is devoted to the scientific analysis and practical testing, of the many samples of flour received for inspection, and for experimental purposes. After the analysis, small loaves are made from each sample of flour as a test of the baking quality. Baking powders, yeasts, shortenings, sugars and starches and the various meals and grains likewise come in for a similar test.

The laboratory is equipped with an electric sponge box, one oven heated by gas and one by electricity, earthenware mixing jars, and whatever else is needed for baking. Numerous samples of flour many of which are ground in the flour mill belonging to this Bureau, while others sent in from different sources

undergo the various tests. Here many a perplexing question of the difficult art of bread-making is solved from the problem of the proper selection of flour, the proper mixing of the yeast, salt, sugar and liquid to the matter of the length of time of rising and the right temperature for both fermentation and baking.

The bread-making department was inaugurated for the purpose of aiding in the study of the proper selection of wheat adapted to the various sections of the country. In this study the Bureau of Chemistry undertook to make the chemical analysis of the wheat itself, the flour and the other mill products obtained therefrom and such other tests as would determine the value of the flour for commercial purposes, namely, the baking, the expansion and the gluten tests.

Samples of wheat and grains which are grown in many sections of the country by the Bureau of Plant Industry, are sent to the Chemistry Bureau, to be tested. And flours from other sources are also constantly coming in. After the flour is thoroughly tested to ascertain just what percentage of gluten, of starch, sugar, ash and other substances is contained therein, the bread is carefully baked. The sample is numbered, the mixing jar and baking pan numbered to correspond, and each sample is made up by itself and never mixed with another sample. The pans are of various sizes, the largest being smaller than for the ordinary family loaf, while the smallest would delight the heart of a tiny girl for her playhouse.

Then the formal examination of the loaves takes place, which consists of testing the bread for its weight, its volume, its texture, its color and its flavor. A report is then made upon each sample of flour sent in.

The kitchen equipment consists of a row of earthenware mixing jars, gray stone crockery, immaculately kept, with glass covers for each jar so that the progress of the raising can be watched without exposing the dough to the air by uncovering; a spatula, or broad, stiff knife, ten inches long and very strong, with which the dough is mixed; innumerable graduated cylinders which resemble tall tumblers with measurements marked off; perfect scales for weighing; a sort of closet which stands upon a long table, having two broad shelves and a number of small glass doors, the interior heated with electric resistance coils and equipped with thermometers at each end of the closet; and, lastly, the ovens, both gas and electric, the electric being considered the most successful as to evenness of heat. The ovens, likewise, are equipped with thermometers in order to gauge the temperature of baking. In the ovens are always to be found a tumbler of water to keep the air moist, therefore preventing the top crust of the loaves from becoming hard and dry, and lessening the danger of scorching the bread. The electric oven has a heating plate at the top as well as at the bottom, so that the tops of the loaves will bake and brown as well as the bottoms, a little improvement every cook or housekeeper would appreciate. A pan of water is also to be found in the raising, or fermenting closet, which is also kept filled with water, that the air may remain moist.

This closet or sponge-box is considered the greatest aid in the making of perfect bread. Bread "put to rise" in a room too warm, will sour, and a room too cool will retard the activity of the yeast, sometimes even prevent it, therefore it is most necessary to have a proper and even temperature.

In all the experiments in bread making by the

Bureau of Chemistry, compressed yeast has been used. An atmosphere of over 90 degrees Fahrenheit tends to make the bread sour, for the reason that at that temperature foreign bacteria become very active and since lactic and butyric acids are among the products formed, the result is usually sour bread. The best results are obtained at a temperature of 86 degrees Fahrenheit.

The most important thing in bread-making is the temperature. All ingredients, bowls for mixing and crocks for rising, should be warmed to the same temperature and not allowed to cool. First and foremost in bread-making as in even everything pertaining to the preparation of food, is the sanitary condition of everything.

The old-fashioned housekeeper who is still using the sponge started by her mother before the latter was out of school, the original batch in the same crock never having been disturbed, would find small favor in the eyes of the scientific bread-makers. Yet this was a very common method in bygone years.

At the Bureau of Chemistry everything is carefully measured or weighed. It is only by so doing that a fair comparison of different flours can be made or results duplicated. Inexperienced housekeepers would do well to use the same careful methods until years of practice have trained the eye and hand.

The kitchen equipment is interesting to a degree. The many gray stone crocks used for the rising of dough are hung on wooden pegs over the porcelain sink, the pegs being arranged in hat-rack fashion, the spaces between just large enough to hold firmly the glass covers, convex on one side and concave on the other, by which one can see the progress of the dough through the glass doors of the fermentation closet, without letting in the air by opening the doors or lifting lids.

It has been said that half the ills to which humanity is heir have come from improper breadstuffs, and the Bureau of Chemistry is trying to give some help to the people through their experiments with flours, and the correct methods of mixing and baking.

It is interesting to note that many of the old-fashioned housewives carried out unconsciously scientific methods of making bread having discovered them in the course of their practical experience.

An important part of the work being done along with the bread-making and flour tests is the search for a substitute for fine, white, expensive flour, and thereby reduce the cost of living. The Bureau of Chemistry have been experimenting with ground kaffir corn, milo and kaoling cotton seed meal, dasheen and many other substances, most of which make a deliciously flavored bread. All of these are mixed with a certain percentage of wheat flour to furnish the proper amount of gluten to make a light and spongy loaf. A flour made from soy beans is frequently used by invalids whose diet prohibits the use of sugar and starch. The bread made from it has a yellow appearance and an agreeable flavor. Banana flour is also being experimented with, with a view to adapting to bread-making this abundant product of the tropics.

During the month of February there were 45,305 pounds of tea rejected by the tea examiners. Of this amount 39,105 pounds were rejected for color or facing; 6,200 pounds for quality.

LOUISIANA FIXES STANDARD FOR ICE CREAM.

To Manufacturers and Dealers in Ice Cream:

Your attention is called to Food and Drug Regulation 29 which defines ice creams and fixes a standard for butter fat in these materials.

REGULATION 29.

1. Ice cream is a frozen product made from cream (or cream, milk and eggs) and sugar, with or without a natural flavoring, and may contain not to exceed one per cent of harmless filler and shall contain not less than 10 per cent of butter fat.

2. Fruit ice cream is a frozen product made from cream (or cream, milk and eggs), sugar and sound, clean, mature fruits; may contain not to exceed one per cent of harmless filler and shall contain not less than 8 per cent of butter fat.

3. Nut ice cream is a frozen product made from cream (or cream, milk and eggs), sugar and sound, non-rancid nuts, may contain not to exceed one per cent of harmless filler and shall contain not less than 8 per cent of butter fat.

These standards were fixed after ice creams from reputable factories all over the state were analyzed, and represent the average of these analyses. It is believed that these standards are fair and that the enforcement of Regulation 29 will not work a hardship on the manufacturer.

It was found necessary to make standards for ice creams as the food value was constantly being lowered by adulteration and use of the cheapest materials, thus encouraging low grade and insanitary manufacture.

We wish, therefore, to warn manufacturers and dealers that after April 1, 1914, a state-wide campaign will begin to enforce not only the chemical standards but the sanitary standards of production and handling of ice creams.

The dealer can only secure protection by requiring the manufacturer to guarantee his goods to conform to all requirements of the Louisiana State Board of Health.

FOOD AND DRUG DEPARTMENT,
Louisiana State Board of Health.

March 25, 1914.

NUMBER OF ANIMALS SLAUGHTERED UNDER FEDERAL INSPECTION DURING JANUARY.

Five hundred eighty-five thousand one hundred sixty-four cattle; 122,486 calves; 1,296,625 sheep; 3,118 goats and 3,489,384 hogs were slaughtered under Federal inspection during January last.

There were slaughtered in Chicago houses 134,141 cattle; 21,470 calves; 392,686 sheep; 211 goats and 619,550 swine; in Kansas City houses, 71,819 cattle; 8,397 calves; 144,002 sheep; 1,944 goats and 215,549 swine; in National Stock Yards (East St. Louis), 27,107 cattle; 10,249 calves; 48,016 sheep; 86 goats and 130,079 swine; in South Omaha, 48,982 cattle; 1,938 calves; 171,386 sheep; 5 goats and 219,942 swine; in South St. Joseph, 18,026 cattle; 1,930 calves; 68,097 sheep; 12 goats and 169,597 swine, and at all other establishments, 285,089 cattle; 78,502 calves; 472,438 sheep; 860 goats and 2,134,667 swine.

At the Township High School of Oak Park and River Forest, they make a special effort to make chemistry an important part of the school work. Professor C. E. Osborne is at the head of the chemistry department and is giving his work a very practical turn by introducing a great variety of tests including tests of food for food value.

Trying to Fix Standard for Milk

SCIENTISTS AT WASHINGTON, D. C., MAKE STARTLING STATEMENTS REGARDING THE PRESENCE OF BACTERIA IN MILK

(From Our Special Correspondent, Washington, D. C., March 30, 1914.)

ON Friday, March 6th, at Washington, D. C., the trial of John Gregg, charged with selling impure milk, commenced, but was dismissed March 18th, by Presiding Judge Pugh on account of the illness of one of the jurors. During the short time the case was being heard scientists testifying in behalf of the milk dealer made some of the most startling statements that were ever heard in a prosecution for adulterated foods.

Among the eminent authorities who testified for the defense were Dr. Lee Maynard, of Philadelphia; Prof. Samuel T. Prescott, director of the bio-chemical laboratory, of Boston; Dr. Paul Heinemann, of the University of Chicago; Dr. John Gordon, superintendent of the creamery plant for supplying milk and cream to Buffalo; Dr. John A. O'Donoghue, professor of bacteriology of Georgetown University; Dr. John D. Hirt, of Georgetown University, and Dr. Herbert D. Pease, bacteriologist of the Lederle laboratories, New York.

District and Government scientists and health officials testified that something like 48,000,000 bacteria, 21,000 colon bacilli, and 100 streptococci had been discovered in the sample of milk alleged to have been sold by Gregg.

"You could get all of that bacteria, colon bacilli, and streptococci and more on the point of a pin," declared Prof. Heinemann, one of the witnesses for the defense; "it would not be any larger than the mark of a pencil point, if placed in a compact mass," concluded the bacteriologist.

The testimony of Dr. Herbert D. Pease, of the Lederle Laboratories at New York, was very much to the extreme, and caused a flutter of surprise in the court room, when he made the following statement:

"If milk is contaminated with cow dung and solid portions of the cow dung is strained off and the remaining portion does not color the milk brown and give it a cow dung taste, I should not say that I was in a position to say that that milk is not clean. I could not pronounce milk with urine in it filthy unless I saw the urine poured in. I do not call any milk containing 48,000,000 bacteria per cc. regardless of type, either filthy or decomposed.

"Bacteriological counts have little or no value for public health improvement. I consider Boston's limit of 500,000 ridiculous and would consider a 1,000,000 limit in New York ridiculous; 48,000,000 bacteria in milk is not excessive.

"Any milk is legally salable in New York unless chemically adulterated. I confess I do not know the meaning of the word tyrotoxon. I work for many milk dealers in New York, and am supervising the new water supply for the city of New York. I have refused to draw conclusions from the presence of B. coli in that water."

Hour after hour since the trial began Government and private scientists, Federal and District health officials have argued, described and enumerated the millions of bacteria and other things scientific alleged to

have been discovered in the milk sold by the defendant.

On the outcome of the case hinges the action to be taken against fifty-eight other milk dealers of the district, charged with offenses similar to that with which Gregg is charged. Both sides have bacteriologists as experts.

It is hoped to make the case a test of what standard shall be fixed for milk. The question at issue is whether milk used in the district in the future shall be standardized.

Following is some of the testimony which will be met when the new trial begins, the week of March 30th:

Testimony for the prosecution: "We found Gregg's milk to contain:

48,000,000 bacteria per cc.

21,000 B. coli per cc.

10,000 fermenting organisms per cc.

100 streptococci per cc.

B. coli are the organisms found in the intestines of all warm-blooded animals. Streptococci are the organisms found in pus discharges of ulcerated tissues. They have been proved to cause septic sore throat, tonsillitis, and host of secondary inflammations.

Maynard testified:

"The presence of 48,000,000 bacteria per cc. in milk does not indicate that such milk is decomposed or filthy. The presence of 21,000 B. coli does not indicate contamination with animal excrement. There is hardly a dairyman in the country who is not on to the trick of straining out all visible dirt."

Maynard admitted he was hired by milk dealers.

Prescott testified:

"I could not say that milk was dirty unless I could actually see the dirt. I would not call milk filthy unless it smelled so and tasted so and unless there was visible cow manure and other dirt to be seen in it with the naked eye."

"The presence of B. coli in milk does not indicate contamination with fecal matter. All certified milk ever produced contains B. coli. You cannot say that milk containing 48,000,000 bacteria per cc. is either decomposed or filthy.

"It is impossible to tell anything about the presence of putrefying organisms in this milk from the streptococci and B. coli found in it."

After admitting that if the cow is dirty with dung and the milker's hands filthy there will be larger numbers of bacteria in the milk he declared that the presence of bacteria meant nothing.

On cross examination he confessed he was working on the side for milk dealers and that in spite of the fact that he was defending milk containing 48,000,000 bacteria, the bacteria limit in Boston, his own city, was 500,000 in ordinary milk and 10,000 in certified.

Heinemann testified:

"Milk containing 48,000,000 bacteria is not decomposed or filthy. You can tell filthy milk only by look-

ing at it, smelling it, and tasting it. I am not a physician, but I would not object to using milk containing over 1,000,000 bacteria or any number of B. coli for infants. Infants' milk ought to be boiled to kill the germs and make it more digestible. Milk cannot be produced without filth in it."

Heinemann's testimony was to the effect that there is no use for certified milk for infants when any old kind of boiled milk is cheaper and more digestible.

"In my private work for milk dealers I never make any test for B. coli, because their presence in milk has no significance. Any attempt to regulate the number of bacteria in milk is ridiculous."

Gordon testified:

"Bacteriological tests of milk are of no value. The farmer strains all the dirt out of his milk. Milk containing 48,000,000 bacteria is very good milk. Bacteriological examinations are misleading and B. coli are not an index of anything. It does health boards no good to know anything about the presence of bacteria in milk."

He admitted he worked for milk dealers.

O'Donoghue testified:

"The presence of bacteria in milk in respect to cleanliness has no significance. I don't know whether certified milk containing less than 10,000 bacteria is any better than milk containing 48,000,000."

Taken off his guard he said: "In the milk of dirty unwashed cows I found 300,000 bacteria per cc. In the milk of clean cows I found only 200 bacteria per cc."

In a few minutes he again said: "Bacteria in milk have no significance. Nobody pays any attention to the law in Boston, which limits bacteria to 500,000. There are no prosecutions there."

Hird testified:

"Cow's manure passing into milk is perfectly purified. The portion that goes into solution with the milk is perfectly pure. There is nothing objectionable in that. It is the same material, salts, you would get in a drug store. You can not call any food decomposed unless it smells bad, tastes bad, or both." Reminded that many poisonous ptomaines have no odor and no flavor, he continued: "I say that cow dung in milk up to the point of giving it a brown color is not objectionable. Half rotten ducks are good food. You can't say when decomposition is bad."

Editor AMERICAN FOOD JOURNAL.

Dear Sir: Would you kindly let me know through the columns of your valuable journal the decision of the Referee Board in the saccharin case?

J. W. P.

Dear Sir: In answer to your inquiry, would say that the following decision from former Secretary of Treasury is probably what you are seeking.

EDITOR.

"I am forced to the conclusion that the proper interpretation of the decision of the Referee Board in the saccharin case is that saccharin is positively harmless in quantities that would, in practice, be consumed; and that saccharin does not deteriorate or reduce the food value of any article in which it is used as a sweetner."—From letter of Mr. Franklin MacVeagh, former Secretary of the Treasury, to the Secretary of Agriculture, February 27th, 1912.

MAPLE DISH ASSOCIATION.

The Maple Dish Association, an organization of manufacturers of Maple dishes, formerly known as wire-end butter dishes, has just been formed. The sole and only object of the association is to exploit in all legitimate ways the sanitary and other advantages of the maple dish as a container for foods dispensed in retail stores. An extensive advertising campaign was outlined, and the jobber, retailer and consumer of foodstuffs will be informed through direct circularization and appropriate publications of the convenience and safety of maple dishes as desirable over other food containers, in the manufacture of which chemicals are used, and in the handling of which germ contamination is probable.

At a meeting in Chicago, at which the association was formed, were present M. B. Wallace, of the Escanaba Manufacturing Co., of Escanaba, Mich., F. M. Longnecker, of the Oval Wood Dish Co., of Delta, Ohio, Howard Smith, of the Ludington Woodenware Co., of Ludington, Mich., W. C. Hull, of the Oval Wood Dish Company, of Traverse City, Mich., Mr. Parish of the Richmond Cedar Works, of Richmond, Va., and Riley Sweers, of the Oval Wood Dish Co. of Delta, O. An organization was perfected, of which Riley Sweers is President, F. M. Longnecker, Treasurer, and Sterling Beeson, Secretary. Offices have been established in Suite 44-45 Produce Exchange, Toledo, Ohio.

Manufacturers of maple dishes believe that their product has much to recommend it to both retailer and consumer, and it was decided to tell the world something about it. Points which will be emphasized will be lightness, durability and sanitary features of the maple dish. The old name of wire-end, or butter dish, will be abandoned, and that of maple dish henceforth used. All these dishes are cut from sugar maple timber.

STATEMENT OF OWNERSHIP.

Statement of the ownership, management, etc., of AMERICAN FOOD JOURNAL, published the first day of each month at Chicago, Illinois, required by Act of August 24, 1912.

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H. B. Meyers, President and Secretary, 15 South Market street, Chicago, Ill.

Frances E. Meyers, Treasurer, 15 South Market street, Chicago, Ill.

Dr. John Dill Robertson, 1422 W. Jackson boulevard, Chicago, Ill.

Known bondholders, mortgagees, and other security holders, holding 1 per cent or more of total amount of bonds, mortgages, or other securities: None.

HERMAN B. MEYERS.

Sworn to and subscribed before me this 25th day or March, 1914.

M. W. DOUGLAS,

Notary Public.

(My commission expires June 30, 1917.)

Lack of Efficiency in Food Control Work

VIEWS OF COMMISSIONER WALLIS PRESENTED TO
THE CHAIRMAN OF THE NATIONAL CIVIC FEDERATION

Boise, Idaho, March 14, 1914.

Hon. Vincent Astor, Chairman, Committee on Plan and Scope of Pure Food Work, National Civic Federation, New York, N. Y.

MY DEAR MR. ASTOR: I regret very much that circumstances prevent my attending the initial meeting of your very important committee on March 20, to which I have been honored with a place in its membership.

In view of the fact that I cannot be present, I have assumed to present to the committee some of my views with regard to the very important work undertaken by your body. I do this as a result of my active work as the food executive of Idaho for the past six years, and also being conversant to a great extent with the experiences of other similar officials in the different states of the Union, as given at our national conventions and on other occasions. I have already clearly stated my position before the National Civic Federation, at its gathering last November, as to the lack of efficiency in food control work throughout the United States, and what I consider the cause for the most of it. The lack of co-operation between the states and the federal government is not due to the disposition on the part of either to act independent of the other, but simply because the laws under which we operate will not permit us. There never was in the history of the food control work a greater desire among the enforcing officials to work together than at the present, but we are simply bound hand and foot by the lack of uniformity of our statutes. We have some state laws which are better and more complete for the purpose of our work than is the National Food and Drug Act. Shall we quit enforcing these for the sake of uniformity? Of course, the only answer is apparent to all of us. The national law is a bulwark against the frauds that were perpetrated upon the consuming public at the time of its enactment, and has cleaned up our food supplied in a manner that has been simply wonderful, but in the light of more recent experiences, which could not have been gained had it not been for this beginning, we now see where the national laws are defective. It took many years of hard fighting to get the federal law on the statute book, and we realize that it will take time to amend it in any appreciable degree. It has not taken so long for the individual states to amend the laws they have, patterned, as they mostly are, after the national law, and to strengthen them where experience showed they were weak and defective. Every session of our state legislatures finds the commissioners on hand to fortify their own laws, although feeling that it would be better if the federal act could be amended instead, as this would be more just to those manufacturers who are always anxious to co-operate with the food officials in all that is good to the consuming public. Of course, the question arises, is it practicable to attempt the harmonizing of the different state laws, or to crystallize their best features for use in amending our national food and drugs act? It seems to me that this is an important feature of the work of this committee.

The officials scattered throughout the United States, who have the enforcement of our food and drug laws, have practically agreed on some of the more apparent amendments that should be made to our national law. In an article very generally published, after the conference held in Washington, D. C., November last, called by Honorable David Houston, Secretary of the Department of Agriculture, I briefly stated the nature of the amendments which I considered were practically agreed upon there, although no formal action was taken at that gathering. The substance of these suggested amendments is as follows:

First.—Add another subdivision to the clause defining adulteration, so as to declare adulterated any food or drug product which in the manufacture or transportation comes in contact with filthy or unsanitary conditions, and authorizing its seizure and disposition.

Second.—Make it a crime for any person, association or persons or corporation to place any mark, sign or insignia upon any package, label, covering or wrapping of any article of food or medicine, stating in words or effect that the contents of such package are guaranteed under the food and drug act, or are guaranteed or recommended in any manner by the Government of the United States.

Third.—Reconstruct section 8 entirely and write into the law legal definitions of "imitations," "mixtures," "blends," and "compounds," and require all such to be labeled with their constituents, in the order of their proportionate presence; also place some restrictions on the use of "distinctive names."

Fourth.—Provide for the promulgation of uniform standards of foods with regard to their purity and composition, which shall have force and effect of the law.

I notice from the published report of the annual meeting of the Associated Clubs of Domestic Science, held recently in New York City, these suggestions were embodied in resolutions adopted by that gathering after a discussion of the work before them, thus showing that they are meeting with favor by civic bodies and others who are giving much thought and study to this question of cleaner foods and purer drugs. A committee has been appointed from among the membership of the National Association of State and Federal Food and Drug Officials to make a report on this very subject, to be presented at their next convention, which will be held the week beginning July 13th next, at Portland, Me. To this convention has been invited a committee from the National Food Trades Conference, which met in New York City on the 27th day of last month and which considered some of these suggested amendments to the national law, and endorsed the most of them.

Of course much has to be considered in connection with these suggested amendments. For instance, the one respecting the guarantee legend appears harsh to some of our manufacturers, but I firmly believe that this clause has been used by the unscrupulous class for the very purpose of deceiving the consuming pub-

lic. It has been prostituted by them, and used as an advertisement to palm off their worthless goods upon the people. The public generally believe and have believed that it is a guarantee of purity. The retail dealers of today believe this is what it means, and are astonished when they are informed that it has nothing to do with the purity of the product. The food executives in every state, as far as I know, are united against the further use of the guarantee legend as it now stands. They have all voted to eliminate it. There is no objection to the serial number being given, and it appears to me that this is sufficient to identify the manufacturer of the goods.

The two pressing needs, however, are for uniform standards and a further definition in the law for adulteration, covering the sanitary features of food production and transportation. With these two amendments written into the national law, much of the trouble now existing will be solved.

Another matter which this committee might take into consideration is the advisability of giving its influence to the appointment by the President, by and with the consent of Congress, of a competent Federal commission authorized and directed to investigate the pure food and drug laws of such foreign countries as may appear most advisable, and their administration and enforcement, and to report fully the result of such investigation, which report shall include a statement of the existing laws, regulations, standards, methods and such other information as may be of interest, which report shall be published and made available for general use.

While federal commissions have been sent abroad by Congress to study and investigate along particular lines, no such action has been taken in the field of pure food laws. Such an investigation would be of the greatest value in bringing our laws and their enforcement up to the highest point of efficiency, and undoubtedly be of great service in aiding the development of our export trade in food and drug products. This question of the appointment of such a commission will be considered at the national association of state and federal food and drug officials at its annual convention in Portland, Maine, July next, and will undoubtedly meet with its approval, as it already has by the National Food Trades Conference at its recent session.

In order to bring about a real co-operation of efforts for the betterment of our work, I would like to see this committee represented at the national convention of food and drug officials at Portland, Me., referred to; and as president of that organization I cordially invite you to be present. A similar invitation has been extended other bodies working for this great cause, which has been accepted, and I am glad to say that we are going to give one of our days over to the manufacturers, to be known as "Manufacturers' Day," when they will speak freely to the food executives present. There are but very few manufacturers now who are not quite as interested as we are in the enforcement of our food, drug and sanitary laws. Indeed, many of them are going very much farther than the food commissioners. There is much that they can do in the enforcement of the law, and can make many suggestions that will simplify the work of the officials, and make it more effective. In European countries the advice and experience of manufacturers is sought by government officials having this work in charge.

In conclusion, let me suggest that a complete record be kept of your deliberations, as I feel that your work is going to be of the greatest importance to the nation and her people.

Regretting I cannot be with you in person to take part in your councils, I am,

Most respectfully,

JAMES H. WALLIS, President.

TO KILL AND BLEED POULTRY.

The United States Department of Agriculture makes the following suggestions as to the best method of killing poultry for market:

"Grasp the chicken, when killing, by the bony part of the skull. Do not let the fingers touch the neck. Make a small cut with a small, sharp-pointed knife on the right side of the roof of the chicken's mouth, just where the bones of the skull end. Brain for dry picking by thrusting the knife through the groove which runs along the middle line of the roof of the mouth until it touches the skull midway between the eyes. Use a knife which is not more than 2 inches long, one-fourth inch wide, with a thin, flat handle, a sharp point, and a straight cutting edge."

The above instructions on the proper methods of killing poultry were issued by the Department of Agriculture. At least 30 per cent of all the poultry coming into the New York market is incompletely bled. Much of it is so badly bled that it results in a loss of from 2 to 5 cents a pound, as compared with the corresponding poultry which is well bled and in good order, continues the department. Aside from the bad appearance of incompletely bled chickens, their keeping properties are very inferior. The flesh loses its firmness sooner; its flavor is not so good; the odor of stale flesh and finally of putrefaction comes sooner; and in every way the product is more perishable.

A very large proportion of the unsightly poultry in our markets aside from the rubbing and tearing of the skins, is caused by an incomplete removal of the blood. This is evidenced by red dots which frequently occur where the feathers have been removed, especially over the thighs and wings, or by the small veins, which mar the appearance of the neck. Generally it is the neck which shows most plainly the presence of blood in the fowl, or that a wrong method has been used in cutting the blood vessels in an attempt to empty them. The neck is the first part to discolor, becoming first red, then bluish red or purple and finally green as aging progresses.

SEIZE GRAPE JELLY.

Washington, D. C.—A seizure was recently made of 87 cases of "Mrs. Williams Grape Jelly" in accordance with the recommendations of the Department of Agriculture. These were seized at Jersey City, New Jersey, having been shipped by the Quaker City Pure Fruit and Sugar Preserve Co., Philadelphia, Pa. It was charged that the product is adulterated and misbranded in that analysis shows that it is not a pure grape jelly, but consists in part of an apple product, which injuriously affects the quality of the goods.

A number of other seizures have been made ranging over a great diversity of food products. None of these cases have as yet been tried, but all will shortly be brought before the courts, when it will be decided whether the Government's charges are justified.

Recent Laws and Rulings

THE MEANING OF WORDS UPON LABELS AND WRAPPERS.

(Federal Court.) In the case of Libby, McNeil & Libby vs. the United States, a prosecution under the federal food act, originally tried in the District Court of the United States for the Eastern District of Virginia, at Norfolk and then taken to the Circuit Court of Appeals on error, two questions arose as to the construction of that statute. The first question; are words in everyday use to be given, when found on the labels of pure foods, their ordinary and popular meaning, rather than the commercial significance which they have acquired among manufacturers and dealers? Second question; does the act permit the use of a name for a compound or mixture intended for food which to an ordinary man will appear to be descriptive, but which, if so understood, will be false or misleading? The defendant is a Maine corporation with its factory in Chicago. It prepares and sells what it calls "Target Brand of Condensed Skimmed Milk." It does not put out this product under its own name, but under the name of the "Foster Packing Company." That designation is not the name of an actual corporation, but is a mere trade name under which the defendant, for some reason of its own, chooses to market some of its products. The charge brought by the government was that the product was adulterated, as it contained something more than two parts of cane sugar to something less than three parts of skimmed milk, and that it was misbranded, because the label was false and misleading, in that the contents of the can were not wholly condensed skimmed milk, but were to the extent of 42 per cent cane sugar. Evidence was introduced on the part of the defense to show that the sugar acted as a preservative, that the company manufactured a brand of condensed milk without sugar and labeled it "unsweetened," but that wholesalers and dealers always understood condensed milk to be sweetened, and would complain of being imposed upon if supplied with the unsweetened article instead of the sweetened article. In disposing of the case, the Court of Appeals held: that a food product sold under the name "Condensed Skimmed Milk" is adulterated and misbranded where it contains 42 per cent of cane sugar, the presence of which is not indicated on the label; it being shown that condensed skimmed milk unsweetened is also made and sold. As to question one referred to, the court said that where words in everyday use are found on the label of a food product, they are to be given their ordinary and popular meaning, rather than the commercial meaning which they have acquired. As to question number two, it was said that the Food and Drugs Act which provides that mixtures or compounds known as articles of food under their own distinctive names shall not be deemed adulterated or misbranded when sold under such name, and not an imitation of or sold under the distinctive name of another article, does not apply to a case where the name used in its popular meaning is accurately descriptive of another well-known food product.

Libby, McNeil & Libby vs. United States. 210 Fed. 148.

CANNOT ENFORCE PRICE RESTRICTION AGREEMENT.

(Federal Court.) Where a patented article has passed into the channels of trade and reached a retail dealer, the manufacturing patentee is not entitled to enforce a price restriction agreement for the purpose of preventing competition as against such retailer; such restriction being void both at common law and under the acts of Congress (U. S. Compiled Statutes 1901, p. 3200) prohibiting monopolies.

Kellogg Toasted Corn Flake Co. vs. Buck. 208 Fed. 383.

REGULATING THE TRANSPORTATION OF INTOXICATING LIQUORS.

(Iowa.) In an action brought by the State of Iowa against the United States Express Company to enjoin the latter from distributing or delivering intoxicating liquors within the County of Wapello in violation of the Iowa Code, prohibiting the transportation by express companies, common carriers, etc., to persons not holding permits to sell intoxicating liquors, it was held by the Supreme Court of Iowa that such a suit would lie. The court in commenting on the Webb-Kenyon Law (Act of Congress, March 1st, 1913,) which prohibits the shipment of intoxicating liquors into a state to be used in violation of the state law, there divesting such shipments of protection under the commerce clause of the Federal Constitution, said that such law does not deny the equal protection of the laws, since it is the undoubted right of Congress to prohibit some shipments in interstate commerce and to permit others.

State vs. United States Express Company. 145 N. W. 451.

CANNOT RECOVER FOR ADULTERATED FOOD.

(Ed. Note.—The following cases are unreported.)

A manufacturer of extracts in Chicago bought a quantity of vanilla beans from an importer in New York, and after using part of the beans in the manufacture of vanilla extract found that the extract contained salicylic acid and formaldehyde, which probably had been used in curing the beans. The Illinois Food Law forbids the use of both of these substances in any food product. The manufacturer thereupon returned the portion of the beans which had not been used and refused to pay the bill for the consignment. Suit was brought in the Municipal Court of Chicago by the importer, and the manufacturer not only denied any liability for the vanilla beans used, but claimed that inasmuch as the extract would not be legally sold and was therefore worthless, he should be reimbursed for the cost of the alcohol and other materials used and the cost of manufacture. Upon a trial before a jury, the plaintiff was defeated and the extract manufacturer awarded damages of \$300.00. The plaintiff has taken an appeal to the Appellate Court of Illinois.

DOES A GENERAL GUARANTEE PROTECT THE PURCHASER?

Whether a general guarantee of compliance with the Federal Food and Drug Act covering future purchases is effectual to protect the purchaser, has been decided both in the affirmative and negative by judges of the United States District Court at Chicago.

The negative decision was rendered by Judge Anderson some months ago. In this case it appeared that a wholesale grocer at Chicago, having purchased a quantity of syrup from a manufacturer in that city, shipped the same in interstate commerce to a customer. Samples were taken from the latter by the United States Department of Agriculture and found to be misbranded.

The wholesale grocer having produced a general guarantee given him by the manufacturer, prosecution was instituted by the United States against the manufacturer. Upon the trial of the case, Judge Anderson held that the guarantee being a general one given to cover all future purchases, was void and of no effect, that it did not protect the wholesaler, and that the prosecution should have been instituted against the latter since he was the party who shipped the goods in interstate commerce. Judge Anderson expressed it as his opinion that such general guarantees are nothing more than a general "promise to be good," and that a guarantee to be effectual must be given with each sale of goods.

Following Judge Anderson's suggestion, prosecution was instituted against the wholesaler on account of the same shipment of syrup. Before the case came to trial, a similar prosecution against a manufacturer of preserves, based on similar circumstances, was called for trial before Judge Landis, who held that a general guarantee protected the wholesaler and that prosecution should be instituted against the manufacturer. When the above prosecution against the wholesaler of the syrup came on for trial before Judge Landis, he therefore discharged the wholesaler on the ground that he was protected by the general guarantee and that the prosecution should have been against the manufacturer. Thus both the manufacturer and the wholesaler were absolved by the contrary rulings of the two judges. An appeal has been taken by the preserve manufacturer, which will undoubtedly result in a settlement of the question.

ILLINOIS CORRESPONDENCE.

(From Our Correspondent.)

Commissioner W. Scott Matthews had his entire force of inspectors accompany Dr. L. B. Cook of the Market Milk Division of the Bureau of Animal Industry and Dr. Le Fevre of the Bureau of Chemistry and Assistant State Food Commissioner John W. Newman, on a trip around the dairies adjacent to Elgin and Barrington, Ill., where they inspected and scored, on the basis of the government score card, not only the ordinary dairies, the high class dairies, but the certified dairies. They then visited some of the large bottling plants, some of the small peddlers' bottling plants. This week they are down at Decatur, Ill., and other places where there is considerable bulk milk sold at grocery stores or at milk depots. These were also scored, as were the dairies supplying them. The sale of bulk milk is not approved by either the government or state department. It is looked upon as suspicious. They found more bulk milk for sale in Decatur than in any other city in the state. The municipal authorities accompanied the inspection force and will endeavor as a result of this inspection to pass an ordinance prohibiting the sale of bulk milk. They found dairies scoring from ninety-eight and one-half to twenty-nine, thirty, on the basis of the government score card. They found one stable without a single window, the only means of ventilation

being the door by which the cattle entered the stables. The owner said he preferred a warm stable rather than a well lighted and well ventilated stable. Two inspectors were left in the district in which this stable was located to see that this man immediately changed his equipment or ceased to offer the milk produced therein for sale as human food. The entire inspection force after scoring the place would check it up with the government men and compare notes. Every evening a conference would be held and they would have a review of the day's work. In this way the community was benefited, the government officials obtained a knowledge of the conditions in the district and the Illinois inspection department were enabled to note the differences not only between each individual inspector but as between the state ideas and those of the government. So that from now on every inspection made of an Illinois dairy, bottling plant or bulk milk depot will be scored not only on a government score card basis, but on the government standardization. This is as it should be co-operation between the state and the government.

Dr. Cook returned to Washington this week, Dr. Le Fevre is going to southern Illinois to take up some milk work, the different inspectors going back to their respective territory.

Commissioner Matthews has been very busy for the past week getting out a large edition of the fly bulletin. The coming week will be given over to the preparation of an egg bulletin.

ILLINOIS GRADING CREAM.

W. Scott Matthews, Illinois state food commissioner, has issued a circular letter to the creameries and cream buyers of the state, in which he takes a strong stand for the grading of cream. The commissioner offers the services of his department to bring this about. Following is the letter sent out by him:

This department wishes to state that it will use every means to bring about a state-wide grading of cream, with payment therefore according to quality or grade.

Endeavoring to improve the quality of all butter, to increase the proportion of higher grades and decrease the proportion of unpalatable and unsalable grades, which the best interests of the dairy industry of our state demand, the department establishes the following grades and recommends them to you:

First grade to be cream clean of flavor and showing not over 4 per cent acidity and not under 25 per cent butter-fat as read on the Babcock test.

Second grade to be cream clean of flavor and showing not less than 18 per cent butter-fat as read on the Babcock test, without any acid requirements.

We recommend the rejection of all cream that will not meet the requirements of second grade, as goods manufactured from such cream would be unpalatable and unsalable.

GOOD RECORD FOR ILLINOIS DAIRIES.

Milk inspectors of Illinois who have been looking over the dairies of the state found but three below standard in one section where 108 dairies were inspected.

MINNESOTA SECURES NEW DAIRY INSPECTOR.

Joel G. Winkjar, state dairy and food commissioner of Minnesota, has announced the name of G. A. Norman of Crystal Lake as a dairy inspector of the department.

Indiana Correspondence

(From our Staff Correspondent.)

INDIANAPOLIS, March 27.—At the third annual conference of the county, city and state inspectors of weights and measures, held in this city in the latter days of March, an agreement was entered into between the members of the organization, representing far more than one-half the counties in the state, that hereafter the attention of these officers would be centralized on the enforcement of Indiana's laws relating to weights requirements of food products and that hereafter the "evil eye" in Indiana would be cast upon sales of food products by package. The attitude of the inspectors represents the attitude of other states and of the federal government—but Indiana is in earnest, her sealers say.

That all commodities, particularly food supplies, in the state, hereafter must fulfill absolutely the requirements in weight prescribed by law, as well as the measure requirements, was the consensus of opinion. Many inspectors, giving their views on how the new amendment to the weights and measures act should be enforced, said that they would pay particular attention to the provisions calling for accurate weights in measured commodities. Rules of the state board of health, based on Federal regulations, prescribe the proper regulations in weight for each class of commodity that is sold by weight in Indiana.

At the meeting here H. E. Barnard, state food and drug inspector and state inspector of weights and measures, in the "keynote" address of the meeting, declared that the standard of the inspectors of weights and measures in Indiana has been elevated—that they today are on a plane exactly as high as the county prosecutors, the county superintendents of public instruction and other county officers. He pleaded with the men to assume this attitude toward their duties and to feel hereafter that their positions were one to which the laity could look up, feeling the utmost safety in placing its business in their hands.

Governor Samuel M. Ralston, in an address to the inspectors, told them of the possibilities that have been created for them to be of real public service and assured them that the strong arm of the state government would be at their backs in every sane interpretation and enforcement of the weights and measures act that they undertake.

John T. Willett was again named president of the organization. Wallace Lottridge has just been appointed the new marketmaster of Marion, Ind., following a decision by Judge Paulus, of the Grant County circuit court, in which it was held that the board of works in cities the size of Marion has the appointive power for the marketmaster. Lottridge succeeded John Grant, who had held his position under appointment from the city council.

An uproar in the northside residence district of this city has developed over an organized attempt on the part of drug stores in that vicinity to boost the retail price of "drug store" ice cream to 30 cents a quart from 25 cents a quart, the former price for years. Many of the smaller drug stores of that section of the city have become almost entirely ice-cream dispensing shops during the summer months and the

retail trade in some places had grown to enormous proportions. Investigations among the wholesalers found that they had not intended raising the prices. Individual dealers in "drug store" ice cream declared there had been no agreement by which the price should have been raised this summer, but all announced that after March 15 the new price would be in effect. There now is talk of a combine of north side former customers to "boycott" the drug stores—"for principle's sake," the residents say.

Isidor Wulfson, deposed inspector of weights and measures in Indianapolis, who became known the country over because of his implacable hatred for the "short weight" artists is to open a delicatessen and fancy grocery on the north side in Indianapolis. Wulfson plans to conduct a model store. He says he will guarantee full measure, full weight and pure food. He said he hopes later to establish a market, in opposition to the Indianapolis market, subletting stand space to dealers, who will agree to his ideas of "justice to the housewife." Any violation of the full weight, full measure, pure food provisions of his leases will be followed by cancellation of the standholder's privileges, Wulfson announced.

Dr. Benjamin F. Potter, superintendent of the Marion County Asylum for the Incurable Insane, has announced an innovation. The patients at the asylum were given work during the early spring making maple sugar and maple sirup, which is to be placed on the local market.

The city of Connersville, Ind., has abolished the "free lunch" of its saloons and saloonkeepers of Lafayette are considering abandoning this phase of the liquor business. Regulations of the state board of health in Indianapolis for some time has compelled obedience to the pure food laws, insofar as covering meats, etc., has been concerned, relative to saloon "free lunches."

Warren S. Titcomb, of Knoxville, Tenn., who is at the head of the newly established department of weights and measures in Tennessee, has just visited Indiana to study the workings of the Indiana law, after which the Tennessee statute is patterned.

Fifty exhibitors held space at the big pure food show in Fort Wayne this month. The show was the largest of the sort ever staged in that part of northern Indiana and the results obtained were extremely beneficial, according to officers of the show.

That no one is able to tell at what price the buying of eggs for storage purposes will start this year was the assertion of R. R. Ragan, manager of the American Dairy Company, and secretary of the Ohio and Indiana Egg and Poultry Shippers' Association, which met in Indianapolis late in March. The provision of the new tariff law, placing eggs on the free list has made the market extremely uncertain, members of the organization declared.

"Under the old tariff law there was a duty of 6 cents on eggs imported from foreign countries," Ragan said, "but the new tariff law has taken off this duty and eggs now come in free. It is impossible at this time to tell what effect this will have on the sup-

ply of eggs in this country. Large shipments have come in from some of the foreign countries to San Francisco and New York. The heavy season for eggs for storage will soon be here, and the shippers always hold a meeting before that season opens to compare notes, discuss the situation and try to find out at what price the market will start.

"In view of the present uncertainty of market conditions, it is a question whether the shippers wish to run the risk of storing eggs this season. I presume they will store eggs, but no one knows what price to pay for them, because we cannot tell anything about the possible importations."

The slow moving of the ice in the great lakes and the consequent inability of fishermen to draw their nets with any degree of regularity, resulted in small shipments of fish to Indiana during the Lenten season. Three times the usual price for fish "at the lakeside" was reported by dealers here. Hotels and high-class cafes were taking up the available supply rapidly late in March. The Lenten fish trade was unusually heavy in this city and throughout the surrounding counties. Fresh shad had just begun to arrive late in March and was expensive. A 250-pound halibut was placed on display here to attract Lenten crowds to a local fish store.

The price of eggs in several Indiana counties has dropped so rapidly this month that farmers' wives refused to bring them to the markets in the county seats. Meanwhile the demand for eggs opened rapidly with the better weather and the price fell more than 100 per cent from that of a month ago.

A few hot-house tomatoes have been placed on the market here. All are Florida grown. During the severe cold and "freeze-up" of the early part of this month, oyster prices went sailing skyward. Few shipments were received and many dealers here stopped handling them entirely.

Herman F. Adam, the new inspector of weights and measures in Indianapolis, has issued a warning against the use of a certain type of barrel-shaped scales.

"There seems to be a misunderstanding among the merchants who are using a certain kind of a barrel-shaped scale," he said. "The scale that does not come up to the specifications of the Indiana law is the sixty-one and sixty-three barrel-shaped scale with cylinder charts and with twenty-four pound capacity.

"The computing table runs from 4 to 30 cents. This make of scale was manufactured about ten or fifteen years ago. I have notified the merchants using them that if they will have the cylinder changed to comply with the law, or cover up the computing chart by painting the glass, sell by pounds and ounces, and have the adjuster capped so that it can only be manipulated by an outside mechanical device, they may keep either one of these types of scales and the department will seal them."

During the month of February the inspectors of the state board of health made 733 visits to food producing and distributing establishments. Of this number 10 were reported as in excellent condition, 452 good, 248 fair, 15 poor and 8 bad.

Of the 248 grocery stores inspected 7 were rated excellent, 164 good, 75 fair and 4 poor.

One hundred and twenty meat markets were inspected. Of this number 3 were rated excellent, 84 good, 32 fair, and 1 poor.



DOUGHNUTS In Five Minutes

Anybody can add a little water to Yours Truly Prepared Doughnut Flour and serve doughnuts, hot from the pan, fresh and fluffy, in a jiffy. You can make four dozen for only 6¼ cents a dozen.

There is no batter to mix—just the Doughnut Flour **and water**.

Yours Truly Doughnut Flour is a scientific blending of the usual doughnut ingredients.

The proportion of ingredients is exactly correct to make doughnuts of texture and deliciousness—that fry uniformly without absorbing fat and rise to wonderful lightness.

Make Other Good Things

like crullers, fried cakes, banana or apple fritters, Henriettas and Bismarcks.

Yours Truly Prepared Doughnut Flour

is an original time, work and money-saving help for the housewife and wholesome, healthful food for the home **certified** by independent food chemists in the same way as all



Yours Truly
TRADE MARK REG. U.S. PAT. OFF.
Certified Food Product

Rolled Oats
Pork and Beans
Macaroni
Spaghetti

Peanut Butter
Tomato Catsup
Coffee
Condensed Soup

Spices
Flavoring Extracts
Prepared Mustard

and other Certified Foods prepared under direction and selection of

YOURS-TRULY COMPANY, Chicago

Sixty-two of the 75 drug stores visited were rated good and 13 fair.

Of the 108 bakeries and confectioneries inspected 75 were rated good, 31 fair and 2 poor.

Thirty-five of the 103 hotels and restaurants visited were found in good condition, 64 fair and 4 poor.

The 3 creameries, 1 milk depot and 6 flour mills visited were rated good.

Ten of the 32 ice cream parlors were scored good, 21 fair and 1 poor.

Inspections were also made of slaughter houses, bottling works, wholesale groceries, fruit stores, etc.

During the month 51 condemnation notices were issued, 48 because of unsanitary conditions, and in addition, 41 because of improper construction.

Two prosecutions were brought during the month, one for the sale of milk to which water had been added and one for maintaining an unsanitary slaughter house.

The total fines and costs amounted to forty dollars.

During the month of February, 73 samples of food were analyzed. Forty-two were reported legal and 31 illegal. Sixteen samples of cider were analyzed and all found to be illegal, as they were sold as sweet cider and contained a high per cent of alcohol. The two temperance beers submitted for analysis were found to be ordinary beers and were classed as illegal. The three samples of temperance beer called "Clearo" upon analysis proved to be ordinary beer and were classed as illegal. Two of the three samples of catsup analyzed contained benzoate of soda and were classed as illegal. The two illegal creams were low in butter fat. Of the 17 milk samples analyzed, 13 were classed legal and 4 illegal, being very dirty.

Fifteen samples of drugs were analyzed during the month.

CARE OF EGGS IN IOWA.

Between \$6,000,000 and \$7,000,000 will be saved to the farmers of Iowa annually by following the instructions soon to be issued on the care of eggs and poultry, by W. B. Barney, state food and dairy commissioner of Iowa. He has called in four of the food inspectors who are now at work on the bulletin.

The millions which Mr. Barney claims he can save every year if the farmers will follow his directions now is represented by waste. From May 20 on during the summer, there is difficulty in preventing eggs from becoming spoiled before being gathered. The department will tell the farmers when to gather eggs and how to take care of them after they are taken from the chicken house.

Delay in getting the eggs to market during the hot weather is blamed for most of the waste in the shape of bad eggs. When eggs are placed in cold storage in the spring presumably they are fresh when sent in from the farms, but much of the damage to the quality of the hen fruit is done before rather than after being placed in storage, providing the storage is only a limited period of time, the authorities say.

The department expects to benefit the farmer by putting money into his pocket. It expects to benefit the public by reducing the number of poor eggs on the market.

DENVER WOMEN CRUSADE FOR SANITATION.

The Denver branch of the housewives' league has appointed a committee on sanitation to investigate the sanitary conditions of food establishments in Denver, Cal.

PROCESS OR RENOVATED BUTTER IN MICHIGAN.

We notice in newspaper advertisements in various state papers that some grocers are advertising "Sweet Process Butter." We find on inquiry also that process butter is being sold for dairy butter. This is a rank fraud. Process butter, so-called, is merely and simply renovated butter.

During the summer time the local grocer buys much bad butter that it would not be possible to sell. When he gets a chunk of this, he heaves it into a barrel generally standing at the back door, and from time to time continues to throw in chunks of uneatable butter until he has a barrel full. This barrellful of rancid butter, oftentimes mixed with dirt and insects, is then sent to the renovated factory where it is melted, the insects strained out and the oil is churned with milk and thus made into what is called "Renovated Butter." Its name truly describes it.

A few years ago, however, the renovated butter men were able to get a law passed by the legislature so that they could call their product "Process Butter." Whenever the consumer in this state gets a package of butter which has stamped on it "Process Butter," he will know that it is renovated butter which has been subjected to the process above described. Whenever process butter is so advertised or displayed, as it is required to be by law, under the name "Process Butter," the consumer should not be deceived into believing that he is getting butter made by some new process. He is simply getting renovated butter which is absolutely the poorest and most unwholesome butter that there is on the market. Do not be deceived by the process butter fraud.

JAMES W. HELME,

Michigan State Dairy and Food Commissioner.

MICHIGAN FOOD INSPECTOR SUED.

Alderman G. E. Decke, of Lansing, Mich., has begun proceedings against W. T. Hulcher, state food inspector, in which he asks \$5,000 for malicious prosecution. The suit is an outgrowth of the prosecution of Decke last December for alleged violation of the pure food law by alleged failure to properly stamp a package of lard compound. The charges against Decke were dismissed. Attorney General Fellows will defend Hulcher.

UNINTENTIONAL SKIMMING OF MILK CAUSES TROUBLE FOR MILK DEALERS.

Dairymen, grocers and restaurant keepers who sell milk at retail often violate the laws regulating the sale of milk by unintentionally selling skimmed milk.

If the milk is not thoroughly mixed before pouring from a large container into a small can, pitcher or other receptacle, most of the cream, which naturally rises to the top, will be poured into the first receptacles which are filled. The last milk poured out is actually skimmed milk, for it contains little or no cream. The same trouble occurs when milk is drawn from a faucet, except that in this case the process is reversed; as the skimmed milk is drawn from the bottom of the can first and the cream layer remains until the last.

The Department of Agriculture recommends that milk be retailed in bottles. Whenever it is necessary to sell bulk milk, vendors are advised to mix their milk thoroughly each time before pouring from a large container into a small one if they wish to avoid unintentional skimming. This can best be done by stirring the milk with a long-handled dipper. Shaking the can is not sufficient.

Saccharin vs. Sugar

LAST YEAR approximately 100,000 Americans died from Bright's and other diseases of the kidneys. Standing alone these figures are impressive. Considering them in connection with two important facts, they become startling.

These facts are:

- (1) That fully 60%, or 60,000 of these deaths could have been prevented or postponed for years if the presence of the disease had been discovered in its early stages.
- (2) That the death rate from these diseases is increasing at an abnormal rate—72% in 20 years and 23% in the last 10 years. (In the registration area.) —From *The Human Factor*, March, 1914.

It has been estimated that about 20 per cent of our people are either suffering from diabetes or have a tendency to be so afflicted. **Sugar is a known poison to such people** and every physician will tell you so.

Saccharin has no deleterious effects on either the sick or the well, and its discovery represents one of the greatest achievements in the world of science. Why, therefore, unnecessarily subject this great percentage of our people to the possible dangers incident to the use of sugar, when it can be avoided by the use of Saccharin.

No one with any feeling of independence or sense of manhood *should hesitate to use Saccharin through fear of criticisms from those who have selfish interests.*

We strongly recommend that when Saccharin is used in foods or beverages, the fact be so stated on the label.

We will defend the users of OUR SACCHARIN against any charge that it is deleterious to health.

Monsanto Chemical Works

Manufacturers of Saccharin

Saint Louis and New York

Missouri Correspondence

(From our Staff Correspondent.)

WHILE in this country, the importance to the general health of the inhabitants, and the sanitation of cities and towns has for many years been recognized and cleanliness of the person and in the homes have been distinct characteristics of the American people, yet, the most essential portion of the laws of hygiene, and that in which the closest scrutiny was requisite, viz., the consumption of food and drugs, was regarded as relatively unimportant, and every attempt to call public attention to the insidious enemies of human health smuggled into the system, and there accomplishing their fell purpose with the most relentless pertinacity, was met with a laissez faire indifference, which betrayed an astonishing ignorance or neglect of an evil which had proved a far and away more dangerous enemy to human life than war, or pestilence.

There has, however, in recent years been a radical change in public sentiment in this respect, and one of the best manifestations of the spirit of social progressiveness is in the more or less general reawakening of public vigilance to the necessity of rigidly restricting the sale and consumption of impure food and drugs.

Nevertheless, the movement has not as yet advanced many stages from its swaddling clothes, and though realizing in large measure its importance, enacting laws to prevent the manufacture and sale of impure food and drugs and appointing officials to enforce them, we still find, even in the legislatures of most of our states, and to some extent even in our Federal government, only a bare fractional part of the inspection work, which is always an essential prerequisite to the enforcement of the law, can be done by these officials, because of the failure of the legislative authorities to furnish them with an appropriation sufficient to enable them to carry out a thorough and effective administration of the food and drug laws.

The state of Missouri has seven inspectors to do all the work of inspection and regulation of the manufacture and sale of food and drugs in the fifth largest state in the Union, is given no legal authority or provided with means to employ additional inspectors. Missouri, fortunately, however, has one of the most up-to-date and alive food and drug commissioners in the United States. Frederick H. Fricke, previous to his appointment, had an experience of twenty years as a practical druggist. On taking charge of the food and drug department of the state he determined that the food and drug department should be conducted on a systematic, business-like and thoroughly practical basis.

The location of the chief office at St. Louis gave to the new commissioner a big center in which public sentiment in aid of the manufacturer and sale of pure food and drugs could be crystallized, and through the influence of the metropolitan press caused to radiate throughout the entire state. This location also enabled him to be in close and active touch with the great sources of food and drug supply in the state.

A law was passed by the state legislature in Mis-

souri in 1911, regulating the sanitation of all establishments where foods and drugs were manufactured and sold, and giving the commissioner plenary powers to secure its enforcement. The department had just one inspector to cover the enormous territory of St. Louis city and county, with a population close on a million. The St. Louis inspector has, within the past year, actually made over four thousand inspections of establishments where foods and drugs were manufactured and sold. Realizing the almost utter impossibility of carrying the law into effect, with the resources at his disposal, Commissioner Fricke determined to secure co-operation by arousing public sentiment to the necessity of cleanliness and sanitary order in these establishments. The personal inspections conducted by himself had demonstrated to him the positive necessity of a radical and widespread improvement in these conditions. He secured the valuable aid of the St. Louis Daily Press, and in a very little while an opportunity presented itself to put his policy into effect, which he proceeded to take immediate advantage of. An organization known as the "Consumers' League of St. Louis," composed of a large number of matrons of the city and wives of some of the most prominent of the business men and as well as an advisory committee, headed by the leading representatives of the Catholic, Protestant and Jewish churches, as well as men prominent in all walks of life, had a short time before been organized, and Commissioner Fricke was invited to attend one of the meetings of this body. He promptly responded to the invitation, and delivered an address in which he invited the active co-operation of the members of the league, and called for volunteers to assist him in carrying out his purposes and plans.

Realizing that punitive measures in carrying out the purpose and scope of the food and drug laws should only be resorted to in the last extremity, Commissioner Fricke devised a plan by which he hoped to encourage a spirit of emulation, particularly amongst restaurant keepers, grocers, butchers, druggists and other persons engaged in the sale of foods and drugs. He determined to establish a white list or scale of sanitary ratings, in which the owners of these places would be given a rank in proportion to the cleanliness and order in which their establishments were conducted. The St. Louis papers opened up their columns to the inspection work and the rating list of the food and drug department. Inspections were conducted by Commissioner Fricke, the chairman of the food committee of the Consumers' League, Mrs. E. T. Senseney. On the first inspections conditions were in many places found to be very unsanitary and improvements sorely needed. The publication of these conditions and the rating list brought hundreds of applications for fresh inspections from proprietors and managers of food and drug establishments, and intimations that they had made a general clean-up and all necessary improvements in these places.

A second inspection was shortly after made, and an astonishing transformation was developed in most of these places, so that it is no exaggeration to say

A SYSTEM

DESIGNATED AS THE
"R. G. DUN OR BRADSTREET"
 For the Retailer, Publisher,
 Doctor and Dentist
 THE
National Rating League's

System of "Collecting by Rating" is yielding marvelous results throughout the United States.

Indorsed by

THE FEDERATION OF NEBRASKA RETAILERS, Nov. 20, 1913, as the official RATING AND COLLECTING PLAN for Nebraska;

The Indiana Retail Merchants Association, Jan. 22, 1914, as the official Rating and Collecting plan for Indiana;

Ask the following publications what they think of us: Merchants Trade Journal, Des Moines, Ia.; Omaha Trade Exhibit; Interstate Grocer, St. Louis, as well as thousands of satisfied clients throughout the United States.

Send for "Brief Facts"

NATIONAL RATING LEAGUE

6231 STEWART AVE., - CHICAGO

AN IMPORTANT ANNOUNCEMENT

TO THE JOBBER AND RETAILER



The St. James Importing Company, of New York and London, the well-known distributors of Waw Waw Sauce, has been bought by men of strong financial backing who bring to the Company not only ample resources but also the full benefits of many years' experience with one of the largest and most successful manufacturers of food products in the country.

Plans are already laid to place Waw Waw in its deserved position as the King of Table Sauces.

We cannot make Waw Waw Sauce itself any better but we can and will make Waw Waw Sauce a better seller.

An extensive advertising campaign in the leading Journals is now in course of preparation. No pains, expense or effort will be spared to make Waw Waw a leader in easy, steady selling, just as it is now a leader in quality.

Full details of the new plans will be mailed to jobbers and retailers throughout the country. In the meantime the already increasing inflows of orders are being filled promptly from our New York warehouse.

SPECIAL—If you are not fully acquainted with the unusual merit of Waw Waw Sauce, write at once and a full size sample bottle will be sent for trial on your own table.

St. James Importing Company NEW YORK

E. PRITCHARD

Packer and Manufacturer
 of the Finest

"EDDYS"
 BRAND

**Canned Foods,
 Jellies, Preserves,
 Plum Pudding,
 Sauces, Table Delicacies,
 and**

**PRIDE OF THE FARM
 Tomato Catsup**

Bridgeton, N. J.
 and 331 Spring St., New York

at the present time that the food and drug establishments in St. Louis are, in point of cleanliness and sanitary arrangements, as up-to-date, and of as high a standard as any places of a similar character of any city or town in the country.

Commissioner Fricke has just returned from a ten days' campaign in Kansas City, where, with the assistance of the press and the Consumers' League, recently established in that place, he has been enabled to put his rating system into effect, with the result of creating a vast improvement in sanitary conditions in food and drug establishments in that city.

ICE CREAM ADULTERATIONS.

Thirty-five informations charging violations of the standard law of Missouri, 1909, requiring fourteen per cent butter fat in ice cream have been filed by Commissioner Fricke in the office of the prosecuting attorney of the city of St. Louis. The defendants are charged with abstracting in part a valuable constituent of ice cream, namely, milk fat. A test case from these has been selected and was recently argued before the Court of Criminal Correction by the attorney for the department, on a demurrer filed to the information alleging unconstitutionality of the law, and failure to provide penalties for its violation. The case has been taken under advisement and a decision is soon expected.

BERRIES.

Commissioner Fricke has made a ruling in relation to the packing and shipment and sale of berries of the highest importance to shippers of these fruits. The ruling is as follows: "The practice of shipping berries in boxes apparently of quart size, but interiorly constructed with false or inserted bottoms, and containing less than a quart, and offered for sale as a quart of berries, is a violation of the food and drug laws of the state of Missouri. A circular has been issued and sent to all shippers in the state informing them that this ruling would be rigidly enforced and prosecutions promptly brought, if violations of same be found."

ST. LOUIS WOMEN CAMPAIGN FOR PURE FOOD.

The women of St. Louis, Mo., have begun a campaign for pure food under the auspices of the National Consumers' League. "Clean up or close up" is the order they have issued to dealers in food stuffs.

COFFEE CHARGED TO CONTAIN ROTTEN BERRIES.

Two shipments of coffee from New York City were seized recently on the recommendation of the U. S. Department of Agriculture, the charge being that they contained an excessive number of rotten or decomposed berries. Both seizures were made on March 4, 1914, at Petersburg, Virginia. The cases have not yet come up before the courts, but they will be tried in due course, when it will be determined whether the charges are justifiable. *This statement holds true of all the seizures noted in this article.*

Fourteen sacks of coffee, each containing 50 pounds, had been shipped by Potter, Sloane, O'Donohue, New York City, N. Y. The product was called "Bed Rock Coffee." Fifteen cases and 25 packages each containing one pound, had been sent by the same shipper. This product was called "Dixie Brand Coffee." Both adulteration and misbranding were charged. Officials making the seizures maintained that the mixtures had

been coated or glazed in such a manner as to conceal their inferiority.

A shipment of coffee was seized on March 5, at Philadelphia, it being charged that the coffee was misbranded. The shipper was Despres & Co. of New York City, and there were 19 sacks seized. It is charged that the coffee consists largely of "Santos" brand, although it was represented to be "Maracaibo" coffee, which is a better and more expensive brand.

Two shipments of dried apples were seized during the latter part of February on the recommendation of the Department. One seizure consisted of 10 bags that had been shipped by E. C. Sheppard, Stuart, Virginia, to Washington, District of Columbia. The other consisted of 33 sacks that had been shipped by Isaac Rosenbaum & Sons, Louisville, Kentucky, to Evansville, Indiana. It is charged that the goods in both instances are adulterated in that they consist in whole or in part of a filthy vegetable substance.

Other recent seizures of "vegetable substances" charged with being filthy, were made in New York City and Galveston, Texas. In the first instance the seizure consisted of 237 boxes of dates (each containing 80 pounds). These were shipped by Birdsong & Co., Philadelphia, Pennsylvania, and were labeled "Camel Brand—Finest Selected Persian Dates." The other consisted of 20 cases of "Big R Brand Tomato Pulp," which were shipped by Roberts Brothers, Baltimore, Maryland.

Another recent seizure was made at East Hammond, Indiana, and consisted of 2 cases and one bottle of "Napoleon Brand-French Style Cognac." This so-called "Cognac" had been shipped by Gluecklich and Company, Chicago, Illinois. It is charged to have been adulterated and misbranded, in that about 80 per cent neutral spirits had been mixed with and substituted for cognac in such manner as to injuriously affect the quality of the goods.

GRAPE JELLY "LARGELY AN APPLE PRODUCT."

Other recent seizures made on the recommendation of the Department are the following:

"Warfield Brand Pure Grape Jellies": 48 cases, shipped by Quaker City Pure Fruit & Sugar Preserve Co., Philadelphia, Pennsylvania—seized February 13th at New York City. Charge—adulteration and misbranding in that the goods consist in large part of an apple product.

Bran: 57 bags shipped by Northwestern Elevator & Mill Co., Mt. Vernon, Ohio—seized February 14th at Parkersburg, West Virginia. Charge—adulteration and misbranding in that the goods contain added screenings.

"Salvator Magnesia Spring Water": 230 cases shipped by Salvator Mineral Springs Co., Green Bay, Wisconsin—seized February 14th at Chicago, Illinois. Charge—misbranding in that the claims on the labels as to the curative effects of this water are false and fraudulent.

"Concentrated Fountain Syrup": 79 gallon jugs of different varieties shipped by the I. S. Fine Corporation, Roanoke, Virginia. These varieties were labeled "Cherry," "Strawberry," "Grape" and "Raspberry Punch" and also "The Perfection of Purity and Excellence—Magic City, German Make." Seizure was made February 17th at Clarksburg, West Virginia. Charge—adulteration and misbranding in that these imitation syrups have been artificially colored and flavored in such manner as to conceal inferiority.



Hanak's Sanitary Display Counter

Mr. Food Commissioner, Mr. Sanitary Inspector.

You officials whose duty it is to enforce sanitation and bring about less contamination in foods

We Have a Message for You!

We want you to know the **Hanak's Sanitary Display Counter**. This counter is designed for the purpose of protecting foods from contaminating influences.

May we send you our catalogue?

The B. B. Hanak Company

West Randolph and Ada Streets
CHICAGO, U. S. A.

Illinois Vinegar Mfg. Company

19th and Rockwell Streets
CHICAGO, ILL.

MANUFACTURERS OF HIGH GRADE
DISTILLED VINEGAR

SPIELMANN BROS. CO.

MANUFACTURERS OF

**CIDERS, VINEGARS &
COMPRESSED YEAST**

MAIN OFFICE

Sheffield and North Aves.
CHICAGO, ILL.

HENNING'S HIGH GRADE PRODUCTS

Distilled Grain Vinegar, Cider Vinegar,
Fermented Sugar Vinegar,
Catsup, Prepared Mustard, Sauces,
Olives, Sauerkraut, Pickles.

Wm. Henning Co., - Chicago
MANUFACTURERS AND PACKERS

Oak Grove Oleomargarine

Eminent food authorities attest the purity, cleanliness and nutritive value of Oak Grove Oleomargarine.

Housewives endorse it for cooking and shortening, and as a wholesome, economical spread for bread, cakes and muffins.

Oak Grove Oleomargarine is made from purest materials. Every process in its manufacture is under the supervision of U. S. Government inspectors.

Sold by leading dealers

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**REFINED CIDER
AND
CIDER VINEGAR**

"ALWAYS GOOD"

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WE ARE the largest manufacturers in Chicago of Catsups and Prepared Mustards, guaranteed under the National Food and Drugs Act of June 30, 1906.

HUSS-EDLER PRESERVE CO., 614 to 622 West Kinzie St
Chicago, Illinois

Ohio Correspondence

(From our Staff Correspondent.)

COLUMBUS, O., March 27.—A campaign on behalf of pure coffee as served at all public eating places is to be begun by the dairy and food department on April 1. The success which has followed a similar movement in Pennsylvania is expected to be duplicated in Ohio. Samples of coffee as prepared for the urns have been secured from a number of sources and submitted to the state chemists. These disclose a widespread use of cereal and chicory.

In this instance the grocer is not the offender. He is now pretty generally in line with the requirements of the law on the question of food products. The hotel and restaurant men, it is disclosed, have been buying the adulterants separately. It will be required hereafter that where pure coffee is not dispensed patrons must be confronted with placards on walls announcing not only the fact of the adulteration, but its form, whether cereal or chicory. This is virtually a prohibitive measure, as very few, if any, restaurants or hotels would want to risk the bad effect of advertising that their coffee is impure.

Except in cases of flagrant violations after an offender has been warned, prosecution will be withheld for sixty days, to give everyone a chance to become familiar with requirements. The force of food inspectors will give the matter their special attention during this period of grace and literature will be sent out from headquarters freely. It is definitely understood, however, that there is to be no temporizing in the matter after the sixty days have expired. Difficulties which heretofore existed in detecting the presence of adulterants in small quantities have been overcome, and nothing less than compliance with the strict letter of the law will be tolerated.

On Monday, March 24, the entire force of food inspectors were here at headquarters in consultation with Chief B. S. Bartlow, of the food bureau. The inspectors are: Septimus Mawer, Grand Rapids; C. A. Carry, Cincinnati; L. W. Campbell, Toledo; F. A. Fisher, Canal Fulton; A. G. Masterson, Malta; W. C. Gear, Upper Sandusky; J. M. Styers, Mt. Vernon, and J. F. Robson, Dayton. Several of the dairy inspectors were also present. The object of the conference was to give force to a system of larger efficiency which has just been inaugurated in the field work. Inspections are to be less general, but are to go into detailed statement of conditions. With this in view new forms of blanks have been prepared. Upon these being received at headquarters they will be tabulated and filed. The sending out of literature suited to the individual needs of the concerns reported on, and a follow-up plan of inspection, will be features of the system.

One of the best tributes to the past work of the department is being seen in the initiative of various lines of business in seeking its services. This denotes a healthy public sentiment on the part of the producer and dealer, and is in happy contrast to the former hostile attitude of many of those made subject to regulation. During the session of the Ohio Bottlers' Association held here in March its executive commit-

tee called at headquarters and solicited that a sanitary code be framed for the business. They voluntarily pledged support not only in helping to get such a document in shape, but to aid in its enforcement. In response to these overtures, the department is now at work on such a code, and it is expected to be in tentative form within a few weeks. A joint meeting will be held between the bottlers' officials and representatives of the department to get the code in working order in the near future. The Bottlers' Association has 250 members.

The Secretary of the Ohio Retail Grocers' Association has also taken preliminary steps to bring his organization and department together on the matter of a sanitary code for groceries. Included in this, or supplementing it, there will likely be a set of rules governing meat markets. With the bakers, ice-cream makers, confectioners and others already lined up, the time would seem to be near at hand when the manufacturing and handling of all food products in Ohio will be under the most modern sanitary regulations. In view of the force being inadequate to extend to the public the full usefulness of the pure food laws, it is a great help to have the different interests show the spirit that is herewith recorded. It is further a vindication of the claim always made by advocates of cleanliness and purity that their efforts in the end serve the best interests of an industry in increasing consumption of product and raising the general standard of the interest itself.

The moulding into shape of the new confectioners' sanitary code is making good progress. It will not differ materially from that governing the ice cream industry, which was given in detail last month. A meeting was held at Dayton in March between the two sides of what is a friendly controversy over a number of the details. Another meeting is to be held in Columbus the first week in April. This is expected to place the code in good shape for adoption at the confectioners' state convention, to be held here about the middle of the month. Much effort is being made by the confectioners to get out a large representative gathering at the convention. They hope that with the adoption of the code and some amendments to the constitution made advisable by same, that the candy-making industry will take on a greater importance. It is the sentiment of the leading members that cleanliness shall hereafter be made a live issue, not through fear of penalty so much as through a desire to uplift the business. Hardship to small struggling concerns in complying with new conditions, in the way of remodeling factories to permit of light and ventilation and in relieving congestion, will not be countenanced as an excuse for failing to comply with the law.

There has been the usual activity during the past thirty days in looking after violators in all branches of the department, and a large number of new suits have been filed. These have included maple syrup, oleomargarine, buckwheat, milk and ketchup. In the case of the latter, bad conditions were found, the concoction being amenable to the anti-adulteration laws on several different counts. Action was brought on the use of coloring matter.

Schulze Baking Co.

INVITES THE CLOSEST SCRUTINY
OF FOOD OFFICIALS AND SANI-
TARY INSPECTORS TO THE
HYGIENIC CONDITIONS AND
SURROUNDINGS OF THEIR
BAKERIES.

THE NAME OF SCHULZE BUTTER-
NUT BREAD MEANS PURE,
WHOLESOME AND NUTRITIOUS
FOOD.

GENERAL OFFICES
30 North La Salle Street
CHICAGO, ILL.

The finest preparation of its kind on the market
today is The Great Food Drink

Malt Marrow

Be sure that you ask for and get McAVOY'S.
The only MALT MARROW that there is.



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Special Attention to Food Analysis in All Its Branches

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DEPARTMENTS: Food, Commercial, Medical, Milling and Baking.
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FRASER & COMPANY

Examination of Foods and Drugs
Chemical, Microscopical and Bacteriological
Chemists' Bldg., 50 E. 41st St., New York

Canned Salmon

ALL GRADES ALL SIZES

Largest Distributors
in the World

KELLEY-CLARKE CO.

SEATTLE, U. S. A.

NATURAL FRUIT FLAVORS

FOR USE OF MANUFACTURERS

C.X.C. LEMON, C.X.C. ORANGE, C.X.C. LIMES

Soluble, Concentrated, Terpeneless

FOOTE & JENKS, Sole Mnfrs., Jackson, Mich.

Victor Chemical Works

New York Chicago St. Louis

Phosphates, Baking Powder
Materials, Epsom Salts

The work of cleaning up the "dope" evil still looms large in the activities of the department. Cleveland has recently been the storm center. Not many physicians were caught in the net there, as was true of Toledo, mention of which was made last month, but traffickers have been found in unusual numbers. The situation in Cleveland with respect to the illicit sale and use of narcotics is very bad, and it will require considerable time to get it under control. The salutary example of a number of convictions, carrying sentences in some instances of \$500 fine and 90 days in jail, is being felt, however. The prosecutions are under the Duff law, which went into effect last August, and which gives the department a true weapon for fighting this demoralizing evil.

In that feature of its work which seeks to protect the public against the unlawful traffic in products that are both harmful and useless, the department is able to give almost sole attention to narcotics, by reason of being relieved of the task of rounding up offenders against the state liquor laws. This was formerly a feature of the work which took up much time and energy, but it has been transferred to the recently-created department, the Liquor License Board, which gives its entire attention to the strong drink problem under the law which makes all bars subject to license and rigid regulation, and at the same time protects them in the most thorough possible manner against the competition of what is popularly termed "bootlegging."

Altogether Commissioner Strode and his chiefs of bureaus have filed during the past month some forty cases. During this period they have secured from the courts twelve convictions, a number of these being on old cases. Some of them involved important precedents. March has proved to be a month of good progress in the work of the department.

The growing public interest in pure food activities brings frequent invitations from different parts of the state for visits from the officials in the capacity of speakers before bodies of one kind or another. In response to a request of this kind, Chief Strode or B. S. Bartlow, head of the food bureau, will go to Cleveland on April 6 to address the Stewards' Association of that city, an organization composed of stewards of the local hotels and clubs. The affair will be in the nature of a banquet, to be held at the Hotel Statler. It is requested that the address be on the workings of the pure food department.

Deep regret is felt by all members of the department over the death of Le Roy Robertson, canning inspector, which took place at his home at Xenia, O., March 8. He was taken ill while attending the convention of the Ohio Cannery Association, at Toledo, in January. The immediate cause of his death was heart trouble. Mr. Robertson had been with the department for three years, and was regarded as a very able official. With the men whom he came most in contact, the canners, he enjoyed a large popularity, and his address was always a feature of their yearly gatherings. This organization took cognizance of his death by resolution. Mr. Robertson was formerly a school teacher, a man of fine education and pleasing personality.

L. G. Bingham, at one time assistant to Mr. Robertson, but more recently a member of the food inspection staff, has been appointed to fill the vacancy.

EXPLANATION OF REORGANIZATION OF BUREAU OF CHEMISTRY.

With the object of unifying the work of the inspectors and the laboratories under the Food and Drugs Act, the United States has been divided into three inspection districts, the Western District, the Central District, and the Eastern District, each of which will be in charge of a chief of the district, who will have immediate supervision of the work of both the inspectors and laboratories in his district. Heretofore the inspectors and the laboratories worked independently of each other, the inspectors reporting directly to the Chief Inspector at Washington, and the laboratories reporting to the Chief Chemist. In this way the headquarters at Washington was the only co-operating link between the inspection service and the Food and Drugs investigating laboratories.

Under the new plan both the inspectors and laboratories will be directly under a single district chief, and this will bring about absolute correlation in work and complete co-operation between the inspectors and laboratories, and will greatly expedite the handling of samples, holding of hearings, and the preliminary disposition of cases. The chief of the district may send samples taken by inspectors directly to any of his laboratories for analysis, or if his own laboratories do not provide facilities, he may send them to Washington. The chief of each district must send full reports on analyses, hearings and all other matters to the Chief Chemist, and his findings are subject to review at Washington.

The district chief, however, cannot institute a prosecution or a seizure, as all cases calling for prosecution or seizure must be first passed upon in Washington.

The dividing line between the Western and Central districts run south on the State lines following the eastern boundary of Montana, including the whole of Colorado in the Western district, and the whole of Texas in the Central district.

The dividing line between the Eastern and Central Districts runs along the western boundary of Pennsylvania and West Virginia, and follows state lines southward including Georgia and Florida in the Eastern district.

The Western district includes the laboratories at San Francisco, Seattle, Denver, and Honolulu. The Central district includes the laboratories at Chicago, St. Paul, St. Louis, Cincinnati, and New Orleans. The Eastern district includes the laboratories at Washington, New York, Boston, Philadelphia, Buffalo, Savannah, and San Juan, P. R.

The Board of Food and Drugs Inspection was discontinued on February 1. The work heretofore done by this Board will be done by the Chief Chemist who will, when necessary, consult with the specialists in the various laboratories.

MAKES MILK FROM BEANS.

The London (Eng.) Times describes the discovery in a London chemical laboratory of a process of manufacturing synthetically a pure and wholesome milk of high nutritive value from a basis of casein obtained from the soya bean. Excellent cheese and butter, the Times says, have been made from this synthetic milk.

On the last day of the pure food show at Ft. Wayne, Ind., 3,500 people were in attendance.



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**National Starch Company
NEW YORK**

Pennsylvania Correspondence

(From our Staff Correspondent.)

HARRISBURG, Pa., March 26.—Local food inspection is just now occupying more of the attention of official and business men in Pennsylvania cities than prospective legislation on the subject of cold storage and regulation of manufacture and sale of foodstuffs. The next session of the legislature does not begin until January and meanwhile a number of the smaller municipalities are taking advantage of laws recently enacted to provide for inspection of foods with more zeal than ever before. The bulk of inspection is aimed at milk and meat and is therefore local in scope. The small town and country butchers who are so common in this state are the chief offenders and because of insanitary surroundings and failure to keep abreast of the times in trade they are causing trouble for many people many miles away.

The State Live Stock and Sanitary Board authorities have been watching with considerable care of late the manner in which inspection of dairies has been conducted by municipal officials and some of the state meat inspectors who have been following up cases have discovered that a good bit of the municipal inspection is confined to the cities and that the municipal inspector knows little or nothing about the physical condition of the herds and the manner in which they are kept. As an immense amount of the milk produced in interior Pennsylvania goes to the larger cities the far reaching influence of these conditions can be seen.

Dairy and Food Commissioner James Foust and the cold storage interests are marking time until the Dauphin county court can decide the suit to test the constitutionality of the cold storage act of 1913. This case will be immediately appealed to the state supreme court to obtain higher judgment and there are intimations that it may even get into the United States courts. Such a course would prolong the litigation and cause the questions at issue to be in an unsettled state when the next legislature meets and might have a tendency to continue the conditions which are satisfactory neither to the state or to the cold storage people. The law is admittedly full of ambiguous and uncertain clauses and there are several places where a tightening up would be welcomed by everyone concerned. It is the intention to get together on the drafting of amendments as soon as the courts pronounce judgment.

Chief James Sweeney, of the State Bureau of Standards is awaiting the decision of United States authorities in regard to tolerances before summoning the committee named to devise a system for this state. This committee outlined its work last fall, but has not been able to make progress because the study of the subject by federal authorities has not been completed and it is essential that there be uniformity and a firm foundation.

Over 100 sealers of weights and measures are now in service in Pennsylvania, practically everyone of the thirty cities and over half of the counties having named men to supervise the measure and weights. In some counties it has been found that crooked weights and

measures have been thickly sown, especially among country store keepers and those in industrial districts and manufactures and jobbers have met the conditions by offers to replace. The farmers are inclined to buck against the standards of weight for bushels carried by the act of 1913 and have started a persistent effort to secure repeal of some of the clauses. In one or two counties a demand has been made for the wiping out of the whole statute, but it is doubtful if the next legislature will disturb it. A row is probable over the berry boxes which will be used in the state this year. The clause of the act specifically relating to boxes was stricken out, but it appears that under the wording of the law that the sealers have authority over such containers after all.

The dairy and food division offices have been flooded with requests from millers and jobbers in flour for information as to the effect on the enforcement of Pennsylvania food laws of the United States court decision in the so-called bleached flour case. It is held that the Pennsylvania law is specific and that there will be no change in the methods employed by the state to enforce the law. The laws of this state specifically prohibit certain things and no change has been made. It is further intimated that no ruling or official statement in this matter will be made from this city.

The new bureau of statistics of the department of agriculture is making an effort to obtain reliable information as to the small fruit yield and the prices obtained for it in Pennsylvania. Last year the bureau got the first real authoritative information about the staples and larger fruits and it is the plan to extend it and to demonstrate the amount of fruit which Pennsylvania supplies to the general market. The state is conducting a series of 2,000 demonstrations of methods of spraying, pruning and grafting in orchards in a campaign to increase the yield of apples and similar fruits and a card index of every one of the 220,000 orchards in Pennsylvania is to be made showing the number and varieties of trees, the yield, proximity to shipping point and opportunities for wider commercial business.

An effort to strike from the female employment act of 1913 the clause exempting the canning trade from the provisions as to hours has been started again by people who are not informed as to the conditions which prevail in canning season and representatives of the trade have sent a committee to the new State Industrial Board to demonstrate that it is a case of using fruit when it is ripe or not supplying the public, and that when the fruit is ready it is a time of stress and requires extra hours, which employes are always ready to work. The female and child employment laws are due for a good bit of discussion in the next few months and it is the policy adopted by the Industrial Board to get all sides together and to agree upon changes before the legislature meets so that the haggling, lobbying and log rolling by welfare people on one side and business on the other may be done away with and business not be disturbed as it was for six

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The Philosophy of Wileyism

IF WE are to believe Dr. Harvey Wiley there are three honest, competent men in the country, besides himself, among those who are regarded as food control officials. Besides the forty-five food commissioners whom Dr. Wiley thinks unfit for service there are other noted men grouped in the list of the derelicts. There's President Wilson for example. He does not come up to the Wiley standard of excellence in matters of pure food. Wiley himself said so at Madison, Wis., recently, at which time he took occasion to make his sweeping condemnation. Among his friends and enemies alike (bar Wiley) President Wilson is hailed as an obstinately honest man, with courage to pursue his convictions to the bitter end. Integrity of purpose is the dominant characteristic of our president. Yet Wiley intimates in strong terms that he does not do for pure food the things an honest man of good sense should do.

Then there are the three secretaries; men of national and international reputation, against whom no man but Wiley has breathed the foul air of suspicion. They do not do their duty (Wiley informs us) because they do not see their duty with the eyes of Wiley.

Dr. Carl Alsberg is the big food official of the country. Since he took the office once occupied by Wiley he has set an example of high minded official work that has earned for him the applause of the country (bar Wiley). Where chaos once reigned all is peace and harmony, and a splendid enforcement of the people's laws. Dr. Alsberg has brought this about by assuming the role of a modest man charged with the duty of carrying out the will of the people. Wiley made the same official position more than ridiculous by attempting to carry out the will of Wiley. If Dr. Alsberg would take council of Wiley he would receive high praise from Wiley and incur the displeasure of millions of people who are noted outside of the Wiley clique as fairly honest folk.

Anyone at all familiar with the work of our food control officials knows that these men as a whole are men of unusual ability, with a high sense of their official duties. They are critical men, but they do not look at other men with a hypercritical eye. They are not going about with a magnifying glass and a lively imagination looking for things that do not exist. They see their duty as the people would have them see it, not as Wiley sees it. They realize that improvement is being made each year in the quality of our food and in general sanitation. They are making progress and wise men and women applaud.

Dr. Wiley has even been concerned with things dramatic and the large type and is continually finding mare's nests and making an awful lot of noise about his discoveries. He cares little for the essentials that all are concerned in, but seeks the exclusive trifles on which he wastes his time, to say nothing of the trouble, inconvenience and expense to which honest and well disposed people are subjected to.

Wiley has been up to Madison, Wis., to help injure the corn syrup people. He and his friend, Commissioner Emery, seem to think it is a terrible crime to use the name corn syrup for a product they would call glucose. The defendant company is dragged into court, put to great inconvenience and expense, and find their healthful, cheap, harmless product officially assailed.

And what is all this fuss about? What real good is sought for the people?

These men would arbitrarily rule that corn syrup should be called glucose.

Suppose they had their way, what good would be done the consumer?

None, whatever. Corn syrup under any other name would be the same harmless, healthful food product it would be under the name by which the manufacturers have made it known by expensive, legitimate advertising.

There is nothing deceitful in the name corn syrup. On the contrary it is a very expressive name, indicating that it is a corn product. It is in fact a truer name than glucose.

Wiley and his few friends have harped so much about glucose that the name has become opprobrious. The public knows little about it except that for some reason it has been assailed. Therefore it has fallen under suspicion.

Corn syrup is a true name and unless the food officials can show that it is not a healthful product, they are exceeding their proper function in attempting to bring it into disrepute.

Wiley and the men of his type have never had a proper notion of official duty. The best of the officials these men condemn are trying to give the people pure food with the least possible friction. They realize that there are other interests in the world and that there are wise, conservative men who are opposed to the Wiley radicalism. They are devoting their time to the obvious, and wasting little time trying to make out that a good food should be put under the official ban because a mere handful of radicals would have it so.

Of course most people in the pure food work understand there is method in the Wiley madness. If he agreed with President Wilson, the three secretaries, chief Alsberg and the state food commissioners he would sing so small no one would pay to hear his nonsense. As it is he is in a very exclusive group of reformers, and as their acknowledged head is able to command space in various publications at a good price. The public likes to read about murders and all sorts of crimes, including the awful pure food crimes Wiley talks and writes about. The public wants this stuff and the publisher makes it his business to furnish it. Wiley understands this well, and profits by it. The more horrible and dramatic he can make his tales the better the publisher likes it. The Wiley stuff jolts the innocent public and the public likes to be jolted.

If it were not for the real harm Wiley does in the world he could be treated as a joke. But he is in fact a serious nuisance that should be squelched. He is able to do harm because of the high official position in the food world he once occupied. When he resigned from office he carried with him the ex-title which gives him a hearing, for which he is well paid.

In semi barbarous countries like Mexico the reformers get the money with a gun. In civilized countries the reformers get the money with a pen and a little oratory.

CELEBRITY VISITS CHEMISTS' CLUB.

The Percolator, bulletin of the Chemists' Club, reports the recent Ostwald dinner a complete success. Prof. Bogert was toastmaster. Mr. Jerome Alexander spoke on the subject of colloids in a serious as well as humorous vein. Prof. Smith further elucidated the complicated subject of colloids. Prof. Baskerville concluded his appeal for the Eustacian point of view with words of grace in bidding Prof. Ostwald welcome. Prof. Chandler used words of charm, when extending the club's welcome.

Prof. Ostwald concluded by demonstrating that a great name is no extinguisher of good fellowship, and that it is the right thing for men of his sort to come to America.

TEACHING HYGIENE BY WAY OF CAMERA.

THE canning industry through its national association is engaged in setting an example worthy of being taken up by many other branches of food manufacture, to wit, using moving pictures for the demonstration of efficient and sanitary principles. Any enterprise of this sort ought to be encouraged from all quarters, as there is no doubt but what education in this form is destined to bear fruit. The scheme appears an easy and pleasant way of instructing a large section of the public, even children, in such manner as to be thoroughly understood by poor and rich alike. It is generally acknowledged that this mode of instruction will get results, where all other means have failed. What is still more important is the fact, that moving pictures get in touch with that part of the public often alluded to as submerged.

These strata of humanity verging on the point of illiteracy will invariably be found to steer clear of any subject involving a mental effort to grasp its meaning or perhaps, if reading of it, dismiss the matter off-hand by concluding it to be nonsense. It is from these quarters that epidemics and contagious diseases originate, endangering the welfare of the entire community. Epidemics and unsanitary conditions are, as a general rule, due to ignorance. Many would do better, if they knew better. It is thus to the advantage of all to instruct the unfortunate ones, who fail to grasp the importance of hygiene and who cannot, due to its nature, measure the devastation, which may be brought about by existing unsanitary conditions. It pays to educate the public in matters pertaining to hygiene, and after all, pure food is not a matter of whether it contains a trace of this or that preservative, but is vitally a matter of hygienic conditions. To maintain cleanliness is a point never to be lost sight of. It is the Alpha and Omega of pure food. A dirty hand fingering our food may cause more harm, than a trace of some harmless preservative.

But this fact is not understood by the majority of those on whose labor we rely for the production and handling of our food. A manufacturer may issue strict orders to his help relative to sanitary habits, but unless each individual laborer is more or less aware of the importance of such orders, he is apt at convenient times to ignore the orders, judging them to be mere "bluff" or "show."

The moving picture camera has opened up a new field for getting in touch with the very same people, that daily handle our foods in various ways. A moving picture, whether it illustrates facts or fiction, is readily understood by all, even by those for whom technical words convey no meaning. A long day of hard manual labor is no incentive for a perusal of books, or any other form of literature for that matter, save perhaps the sensational feature of the daily newspaper, but the moving picture show is ever sure of undivided attention. It is a factor to be figured with in modern life and ought to be harnessed up to better the condition of mankind or at least instruct the great public in matters so essential to their benefit. Nobody will deny the suitability of the camera for such purposes. Take for instance the case of the fly. How admirably the habits of this contagion carrier could be impressed through the camera upon the mind of the child. The same way with pasteurization—in fact, every point of importance in all branches of food hygiene.

IN NEED OF A STIMULANT.

THE time of year approaches when the food commissioner must needs find a way to stimulate his enthusiasm, because he will need an extra supply and because further that at the very time of year when the food commissioner is called upon to display his greatest activity is the very time when the shade of the old apple tree and the hammock are the most inviting. Hence it were well at this time for the food commissioner to seek new inspiration, and find enough of it to stimulate him to unusual activity.

It's about fly time to begin with! And we have all come to realize that the little fly cuts a very important figure in the modern system of pure food economy.

The best thought on the fly question wakes up before the little fly is here, and inspires a lot of work where the hatching fly intends to be. Killing flies in July is warm work. Besides a little of this July energy expended on the manure pile and other fly breeding places will kill more prospective flies than a great deal of time spent killing flies in fact.

Hence it were well to amend the "swat the fly" resolution and resolve to destroy the fly in the embryo. A little later it will be well to swat those flies that escaped from the energy exerted at the manure pile.

Very largely, more largely than ever, the food commissioner has a summer job. Adulteration and misbranding have been given such a severe check that looking after the pure food cheaters is a comparatively simple matter. The newer work has to do with sanitation, and we all know that the little germs that ultimately destroy health or life are busiest in the summer time.

And so it happens that when human energies are wont to be sluggish the enemies of the human family are the liveliest.

The up-to-the-minute pure food commissioner is planning his summer fight now and if he is a far-seeing man the summer work has already been anticipated. His energies have been aroused and he has inspired his corps of helpers with his own enthusiasm for the hot weather work.

Sanitation used to be an incident of the pure food work. Now it is something more than an essential. There is no use to spend a lot of money and energy in getting good food on the market, and then allow it to go wrong because of the unsanitary conditions with which it is surrounded.

Clean up! Clean up! That should be the battle cry of the pure food man from now until frost time comes in the fall. If the unsanitary shop keepers can be given the clean-up habit during the hot weather months it will require but little work to keep them in line during the cold weather season.

It will be hard, disagreeable work, prowling around in foul places and having to deal with unsanitary men in hot weather, but it is the all important work that is staring the pure food man in the face.

Wherefore we repeat that the pure food commissioner must find a way at this time to stimulate his energies and enthusiasm for the unsanitary work ahead of him.

COMMISSIONER HANSEN OPERATED ON.

Willard Hansen, state food commissioner of Utah has recently been operated on for what is known in medical circles as strawberry gall bladder. The patient is recovering remarkably well and there is no doubt but what the food commissioner's many friends will soon find him hale and hearty and at his desk.

DAMAGED CANNED GOODS.

EVERY now and again the markets of our large cities are flooded with a lot of damaged canned goods. These goods are rushed to town and sold quickly and quietly at times, while on other occasions they are peddled out at auction.

Some of these goods are in fact sound, but for the most part the labels are destroyed, and thus identification is made impossible. Other cans are swelled, and still others are leaky. In any event the whole lot should be handled under the supervision of the pure food authorities.

Most of this class of goods have either been through a fire, or have been held in a damp cellar. All of them are in the class of damaged goods, and are sold at a low price as such.

Any kind of damaged food product should be viewed with suspicion, and it matters not whether the damage is to the label or the container. Rusty cans are likely to hold food that is unfit for consumption, and where labels are once destroyed and new ones are permitted to take their place, the new label as an identifying mark has no value.

Not only should the pure food officials pay close attention to the damaged canned goods, but the canned goods association ought to put out a few sleuths to locate this "fire sale" product, because the canners should be vitally interested in protecting the integrity of the class of goods they manufacture. Every bad can of damaged can goods that gets on the market is likely to reflect on the canned foods business as a whole.

BIRTH OF AN IDEA.

AT the convention of the American Chemical Society in Cincinnati, Dr. Edward Gudeman suggested the inhalation of sulphurous acid as an effective treatment for curing consumption in its early stages. Dr. Gudeman called the attention to the well known fact that there is very little tuberculosis in the vicinity of sulphurous acid plants. The value of the sulphurous acid gas treatment is purported to lie in the fact that while it kills bacteria life, it does not destroy the tissues.

A tendency to destroy organic tissues is characteristic of many ordinary germicides. The plan as outlined by Dr. Gudeman sounds promising enough, and in view of the fact that the fight against tuberculosis is a matter of national importance, the idea ought to be tried out on a scale sufficiently broad to establish more definite data.

FIXING CONDENSED MILK STANDARDS.

The Illinois State Food Standard Commission will inaugurate hearings to establish a standard for condensed milk for the State of Illinois. This action is taken upon the petition of a number of condensed milk manufacturers. The first meeting will be held on May 11, 1914, commencing at 2 o'clock in the afternoon, in the office of the Illinois Food Department, Manhattan Building, 531 S. Dearborn St., Chicago, Ill.

ENFORCES MILK ORDINANCE.

Measures have been taken by Health Commissioner Young for the strict enforcement of the city's milk ordinance following the decision of the Supreme Court upholding the ordinance. The attack was made on the provision requiring the use of recording apparatus in connection with pasteurizers.

REFEREE BOARD'S DECISION ON ALUM.

IT has been finally and officially determined that alum in food products is not injurious to health.

The baking powder manufacturers who used alum tried to show that alum was not in any way injurious to health. Somehow the word became opprobrious, and the commercial enemies of the product made much of it in baking powder and pickles, and in anything to eat it became in a large sense taboo. Finally the federal government took the matter up and went about the question of determining officially and practically the real status of this product in food. The government's work covered a period of more than six months. During this time several squads of men were used in an experimental way by several able chemists, the point aimed at being the determination of the continuous use of alum in baking powder. The result of the several independent investigations agreed, so that we may fairly conclude that the question of the effect of it in food products is settled beyond dispute. Officially we have at this time a report on the influence of aluminum compounds on the nutrition and health of man which has been submitted by the Referee Board of Consulting Scientific Experts, in answer to questions put to it by the department. The report of the board itself, signed by each member, is brief, but it is accompanied by three elaborate reports giving the results of three sets of extensive experiments on human subjects conducted independently by three members of the board.

When all the data was presented to the referee board there was nothing for these officials to do but accept the findings of the investigators. This finding of the referee board will settle once and for all the question of its effect in baking powder and other food stuffs.

Perhaps the most significant of the comments made as a result of this investigation is the statement that too much alum or too much biscuit made with any sort of baking powder is not conducive to health. But it tends to show that the investigators in their careful study of the baking powder problem discovered that there is in fact practically no difference, so far as the matter of health is concerned, between a baking powder in which there is alum and one which is made by other processes. The investigators and the referee board have put all popular baking powders in the same class, so far as health is concerned.

GLUE AND GELATINE MEN MEET.

AT THE meeting of the National Association of Glue and Gelatin Manufacturers, which was held at the Congress Hotel in this city on April 30th, the interesting fact was brought out that the per capita consumption of edible gelatin is very much greater in proportion in Europe than in this country. The National Association has been working very earnestly in connection with the movement for uniform state and United States laws and regulations and in favor of the very highest possible standards for gelatin as well as other food products. The uses of edible gelatins are not yet appreciated in this country as they should be and, even from the standpoint of enlightened selfishness alone, if for no other reason, the gelatin manufacturers belonging to the National Association feel that everything possible should be done to maintain the present high standards of their goods in order that the people may be educated to a still greater use of this valuable food product.

AMERICAN FEED MANUFACTURERS MEET.

THE sixth annual convention of the American Feed Manufacturers' Association is to be held at the Auditorium hotel, Chicago, May 22 and 23, 1914. This meeting will bring together the largest number of feed manufacturers and those directly interested in the industry that have ever gathered at one time and place. A special effort is being made to secure the attendance of a large number of feed control officials.

The entertainment committee, C. U. Snyder being chairman, earnestly request the ladies to accompany the members and guests, and has arranged a splendid entertainment with that end in view. The entertainment includes a theater party followed by a supper at La Salle hotel and an automobile ride followed by ball game. All sessions of the association will be public. Here is the program:

FRIDAY MORNING SESSION, 10 A. M. SHARP.

Reports of officers.

Miscellaneous business.

Appointment of committees.

FRIDAY AFTERNOON SESSION, 2 P. M. SHARP.

Address—Prof. Elmer S. Savage, Cornell University, N. Y. Subject, "The Attitude of the Teacher to the Mixed Feed Industry."

Address—J. W. Anderson, president Kornfalfa Feed Milling Company, Kansas City, Mo. Subject, "Co-operative Advertising."

Address—Dr. F. D. Fuller, Lafayette, Ind., representing Association of Feed Control Officials of the United States. Subject, "Some Phases of Inspection Work."

Address—Prof. W. A. Henry, dean Emeritus College of Agriculture, Madison, Wis.

Address—"The Effect of National Legislation Upon Existing State Laws." Name of speaker to be announced later.

SATURDAY MORNING SESSION, 10 A. M. SHARP.

Unfinished business.

New business.

Election of officers.

Adjournment.

Meeting of board of directors.

Meeting of executive committee.

ENTERTAINMENT.

Friday, 12:30—Men's buffet luncheon in convention hotel.

Friday, 12:30—Luncheon for ladies, Fountain room, Marshall Field & Co.

Friday, 8 p. m.—Theater party followed by supper and cabaret entertainment at La Salle hotel.

Saturday, 1:30 p. m.—Automobile ride followed by ball game, Chicago vs. Boston.

STANDARDS COMMITTEE.

Dr. Carl L. Alsberg has announced the appointment of the following members to represent the Department of Agriculture on the National Food Standards Commission:

Dr. R. L. Emerson,

Dr. I. K. Phelps.

Dr. Carl L. Alsberg.

These men will act in co-operation with the following committee appointed by President James H. Wallis to represent the State Food Departments:

Dr. E. F. Ladd, of North Dakota.

J. S. Abbott.

W. F. Hand, of Mississippi.

Official Program for Eighteenth Annual Convention of Association of American Dairy, Food and Drug Officials

To Be Held at Portland, Maine, July 13-14-15-16-17, 1914.

FOR THE BENEFIT OF ALL.

The program for the eighteenth annual convention of the Association of American Dairy, Food and Drug Officials is a promising one in every respect. Speeches relative to the most interesting phases of the food situation will be given by men who have acquired a national reputation on the strength of their ability and integrity. It is highly commendable that in carrying out the program a day is set apart as manufacturers' day, thus offering the manufacturers an opportunity for fully stating their views. It is reasonable to believe that if food control officials and manufacturers met more frequently under similar conditions, being equally inclined towards mutual understanding and mutual justice, the maintenance of the pure food law by co-operation would be a simple matter and would lose some of its violent character without the law losing one iota of its efficiency.

The committee is to be congratulated upon its arrangement of speakers as well as the nature of the various themes to be discussed.

The executive committee of the Association of American Dairy, Food and Drug Officials decided that July 13-17, inclusive, would be the most desirable and convenient date for the annual meeting of the association. The secretary notified Dr. Charles D. Woods, of Maine, of the action of the committee, and was informed by Dr. Woods that it would be impossible for the association to get accommodations at the Mt. Kineo House, the place selected for the meeting by the association, that late in the season.

The committee, feeling that it was the sense of the association that the meeting should be held in July or August, and not as early as the middle of June, decided to accept an invitation from the Portland Board of Trade to meet in that city July 13-17, inclusive.

FOOD OFFICIALS ENDORSE "MANUFACTURERS' DAY."

In preparing the program for the annual convention of the association of state and federal food, drug and dairy officials, at Portland, Maine, July 13-17, 1914, Commissioner James H. Wallis of Idaho, President of the National organization, suggested giving the food manufacturers a hearing, and the suggestion has met with almost universal favor, as will be seen by the expression of some of the prominent food officials.

Dr. C. L. Alsberg, Chief of the Bureau of Chemistry:

"I think your suggestion that we have a 'Manufacturers' Day' is a good one. I see no reason why we should not give the manufacturers a chance to present their views. I do not see how any harm can come from such a plan, and there may be considerable good derived from it."

Dr. H. E. Barnard, of Indiana:

I quite agree with you that we ought to let the

manufacturers in. I have always felt that we could get more good than harm from them. There are but very few manufacturers now who are not quite as interested as we are in the enforcement of pure food and sanitary laws. Indeed, many of them are going very much farther than the food commissioners. Why not ask a representative of the National Canners' Association to be present? I attended a meeting of that committee in Chicago a while ago and was astonished to find that their ideas of sanitation and cleanliness were more positive than I had ever dared to be."

Dr. S. J. Crumbine, of Kansas.

"The sentiment you have expressed concerning the manufacturers, and an opportunity for them to present such matters to the commission as they desire, I believe it a perfectly proper one. There is much that the commissioners may learn from a presentation of the manufacturers' views of many of the difficult problems they have, and I, for one, am always ready to listen to a reputable and conscientious manufacturer give his side of these knotty questions. I am quite well aware that there are commissioners who have expressed themselves otherwise; that is to say, they hold that these meetings should be for the commissioners only, but I am ready to stand back of you in any arrangements you may make for giving an opportunity to legitimate manufacturers to be heard."

Hon. Joel G. Winkjer, of Minnesota.

"I have read with interest your suggestion to have a 'Manufacturers' Day,' or place on the program, for the purpose of hearing their side, and think it would be well to get in touch with them in that way. I am strongly in favor of having the manufacturers present their side, so we may deal fairly with them. I believe I would be in favor of giving them half a day in some part of the program."

Dr. J. S. Abbott, of Texas:

"Your plan to have 'Manufacturers' Day' meets with my hearty and unqualified approval. This is no one-sided business. Most all of us need to learn something that a manufacturer knows, and we should not be afraid to put ourselves in the attitude of a student in their school, and I want to say to you that if there should be any abominable whispering criticisms of this feature, nothing would give me more pleasure than to reply to them on the floor of our convention with all the force and wisdom of my capacity. Give them whatever and as much time as you want to."

Dr. W. D. Bigelow, Washington, D. C.

"I think your idea of enlisting the co-operation of the best grade of manufacturers is an excellent one. There is much that they can do in assisting in the enforcing of the food and drugs act, and if they take it up in the right spirit, as I am sure the most of them will, they can make many suggestions that will simplify the work of the food law officials and make it more effective."

To be held in Portland, Maine, July 13-18, 1914.

MONDAY, JULY 13, 1914.

9 A. M.

Convention called to order by President.

Address of Welcome on Behalf of State—His Excellency, Hon. William T. Haines, Governor of Maine.

Address of Welcome in Behalf of City—Hon. Oakley C. Curtis, Mayor Portland.

Address of Welcome in Behalf of Portland Board of Trade—Hon. Frank M. Lowe, President.

Response to Addresses of Welcome, in Behalf of National Association—Hon. S. V. Strode, Commissioner of Ohio.

2 P. M.

1—President's Annual Address, Hon. James H. Wallis, Commissioner of Idaho.

2—Annual Report of Secretary, Hon. W. M. Allen, Commissioner of North Carolina.

3—Annual Report of Treasurer, Hon. H. E. Potter, Commissioner of Connecticut.

4—Reports of Standing Committees:

(a) Executive Committee, Dr. W. M. Allen.

(b) Committee on Co-operation, Dr. S. J. Crumbine.

(c) Committee on Bacteriological Standards, Dr. J. S. Abbott.

5—Reports of Special Committees:

(a) Joint Committee on Food Standards, Dr. C. L. Alsberg.

(b) Amendments to National Law, Hon. Geo. L. Flanders.

(c) Substandardization of Drugs and Tolerance Limits in Drug Adulterations, Dr. Charles Caspari, Jr.

(d) Memorializing Congress on Standards, Hon. Geo. L. Flanders.

(e) National Dairy Show, Dr. H. E. Barnard.

(f) Drug, Chemical and Food Exposition, Dr. R. B. Fitz-Randolph.

6—Appointment of Committees:

(a) Credentials.

(b) Auditing.

(c) Resolutions.

TUESDAY, JULY 14, 1914.

9 A. M.

1—General Standards, Dr. Carl L. Alsberg.

Discussion—Hon. J. Q. Emery, of Wisconsin; Hon. J. D. Mickle, of Oregon.

2—Misuse and Abuse of Coined, Proprietary and Distinctive Names, Dr. Lucius P. Brown, of Tennessee.

Discussion—Dr. W. M. Allen, of North Carolina; Hon. Herman C. Lythgoe, of Massachusetts.

3—Most Efficient Methods, Including Building and Cost of Meat Inspection for Small Communities, Hon. R. M. Allen, of Kentucky.

Discussion—Hon. Maurice Groshon, of Wyoming; Dr. J. C. Mahr, of Oklahoma.

4—Regulation of Food Supplied Hotels, with Particular Reference to Sanitary Conditions Involved in Its Preparation, Dr. G. G. Frary, of South Dakota.

Discussion—Hon. C. E. Harman, of Nebraska; Hon. Herbert F. Potter, of Connecticut.

2 P. M.

(Section A: State Food and Dairy Executives).

Ten minutes for each paper and fifty minutes for discussion.

Annual Address of President.

Report of Secretary.

Report of Treasurer.

1—Publication vs. Prosecutions as a Means of Abating Food Trade Evils, Hon. E. F. Ladd, of North Dakota.

Discussion.

2—Round Table: The Supreme Court Decision in the Bleached Flour Case. Its Bearings Upon the Forms of State Legislation, Hon. H. E. Barnard, of Indiana.

Discussion.

3—The Value of Specialized Counsel in Food Law Prosecutions, Hon. George L. Flanders, of New York.

Discussion.

WEDNESDAY, JULY 15, 1914.

9 A. M.

1—"Swells" and "Springers," Dr. W. D. Bigelow, Chief Chemist, National Canner's Laboratory, Washington, D. C.

(1) What constitutes a "Swell" or "Springer?"

(2) What are the conditions of the product or of the process which might be a causative agent in producing swells or springers?

(3) Where should the line be drawn as to what class of foods coming into this category might be safely and properly used as food products?

(a) Should canned fruits or vegetables belonging to the class of "swells" be permitted to be processed, or to be sold to be worked up into other products, such as the making of pie stock, or working up into butters, jams or marmalades?

(b) How may such class of fruits that have been worked up into various by-products be detected by commissioners?

(c) Does the presence of tin in excessive quantities denote that such products are made from swelled canned goods?

Discussion—Dr. M. E. Jaffa, of California; Hon. Wm. D. Saunders, of Virginia.

2—Practical Methods in the Analysis of Food Products, Dr. Herman Harms, of Utah.

Discussion—Dr. Geo. B. Taylor, of Louisiana; Dr. W. F. Hand, of Mississippi.

3—Egg Albumen in Baking Powder, Dr. E. F. Ladd, of North Dakota.

Discussion—Dr. J. S. Abbott, of the Department of Agriculture; Dr. F. H. Fricke, of Missouri.

4—False Advertising, Dr. S. J. Crumbine, of Kansas.

Discussion—Dr. R. M. Allen, of Kentucky.

2 P. M.

(Section A: State Food and Dairy Executives).

Ten minutes for each paper and fifty minutes for discussion.

1—Round Table: Inspectors or Special Agents. Their Appointment, Qualifications, Pay and Expense Allowance, Hon. J. Q. Emery, of Wisconsin.

Discussion.

2—What is Done With the Cases Declared Illegal or Not Passed? Why Should Not the Annual Reports State the Facts? Hon. James H. Wallis, of Idaho.

Discussion.

3—What Should be the Food Commissioner's Policy Relative to Passing Upon Labels and Giving Interpretations of the Law in His Correspondence? Hon. Lucius P. Brown, of Tennessee.

Discussion.

THURSDAY, JULY 16, 1914.**9 A. M.**

1—Enforcement of Sanitary Laws and Regulations, With Model Law, Dr. Oscar Dowling, of Louisiana.

Discussion—Prof. E. H. S. Bailey, of Kansas; Hon. W. B. Barney, of Iowa.

2—Uniformity of State Laws and Federal Regulation Regarding Habit-forming Drugs With Model Law, Dr. Chas. Caspari, Jr., of Maryland.

Discussion—Dr. A. E. Frantz, of Delaware; Dr. R. B. Fitz-Randolph, of New Jersey.

3—Uniformity of State Laws to Regulate the Production and Sale of Eggs With Model Law, Dr. J. S. Abbott, of Texas.

Discussion—Hon. W. B. Barney, of Iowa; Dr. Sanford C. Dinsmore, of Nevada.

4—Inspection of Water Supplies, Dr. Chas. D. Howard, of New Hampshire.

Discussion—Dr. J. P. Street, Connecticut; Dr. R. E. Rose, of Florida.

2 P. M.

(Section A: State Food and Dairy Executives).

Ten minutes for each paper and fifty minutes for discussion.

1—The Value of Specific Laws Dealing With Special Commodities, Hon. S. V. Strode, of Ohio.

Discussion.

2—Need for a National Cold Storage Act, Dr. R. B. Fitz-Randolph, of New Jersey.

Discussion.

3—Round Table: Methods of Conducting the Commissioner's Office Work, Hon. Joel G. Winkjer, of Minnesota.

Discussion.

Election of Officers.

Other Sectional Business.

FRIDAY, JULY 17, 1914.**Manufacturer's Day.**

(Papers are not to exceed fifteen minutes each, and duplicate copies are to be furnished the Presiding Officer).

9 A. M.

1—"What Should be the Relation Between Food Manufacturers and Food Commissioners?" Louis Runkel, American Specialty Manufacturers' Association; H. W. Hoops, National Confectioners' Association; W. M. McCormick, Flavoring Extract Manufacturers' Association; Dr. T. B. Wagner, Corn Products Company.

2—"The Advisability of Labeling Canned Foods With the Date When Such Foods Were Packed," Arthur Meeker, Armour & Company; Ex-Governor B. M. Fernald of Maine.

3—"Food Sanitation from the Manufacturer's Standpoint," F. E. Barbour, Beech-Nut Packing Company; S. Fredrick Taylor, President Borden Condensed Milk Company.

2 P. M.

1—"Self-Interests a Much Greater Regulator of Foods Than Any Pure Food Law," A. P. Husband, National Millers' Federation.

2—"Effect of Pure Food Laws on High Cost of Living," Oscar McGlasson, President National Wholesale Grocers' Association.

3—"How Food Officials Can Make Our Grocery

Stores More Sanitary," W. G. Sherer, Sherer-Gillett Company.

4—"Should Food Standards Exclude or Encourage Cheap but Wholesome Substitutes?" Thos. P. Sullivan, Illinois Food Standards Commission.

5—"How Food Legislation Has Helped the Retailer," John A. Green, Secretary of National Retail Grocers' Association.

SATURDAY, JULY 18, 1914.**9 A. M.**

1—A Food Law Weakness: "The Commissioner," Hon. J. W. Helme, of Michigan.

(a) Short Period of Their Appointment.

(b) Term Should be Permanent.

(c) Should be Removed From Politics.

(d) Should Have Knowledge of the Work.

Discussion—Hon. James Foust, of Pennsylvania; Dr. E. F. Ladd, of North Dakota.

2—Value and Methods of Conducting So-called Pure Food Shows, Hon. Joel G. Winkjer, of Minnesota.

Discussion—Dr. Oscar Dowling, of Louisiana; Dr. M. E. Jaffa, of California.

3—Sanitation of Soda Water Fountains, Dr. Chas. D. Woods, of Maine.

Discussion—Dr. R. E. Stallings, of Georgia; Dr. Robt. Wilson, Jr., of South Carolina.

4—Relation of the Food Department to the Municipal Milk Supply, Hon. John B. Newman, of Illinois.

Discussion—Dr. Mark W. Richardson, of Massachusetts; Dr. W. C. Woodward, Washington, D. C.

2 P. M.

1—Editing Questions and Answers, Dr. S. J. Crumbine, of Kansas.

2—Advisability of Special Oleomargarine Legislation, Hon. James Foust, of Pennsylvania.

Discussion—Hon. George L. Flanders, of New York; Hon. Frank A. Jackson, of Rhode Island.

3—Development of Food Industries, Dr. H. E. Barnard, of Indiana.

Discussion—Dr. R. B. Fitz-Randolph, of New Jersey; Hon. W. Scott Mathews, of Illinois.

4—Ice Cream Standards, Hon. W. B. Barney, of Iowa.

(a) Necessity for Standards.

(b) What is a Reasonable Standard?

(c) Feasibility of Milk Fat Standard.

(d) Should "fillers" be permitted?

(e) What "filler" is least objectionable and in what quantity?

Discussion—Hon. Joel G. Winkjer, of Minnesota; Dr. F. W. Cogswell, of Montana.

5—Report of Resolutions Committee.

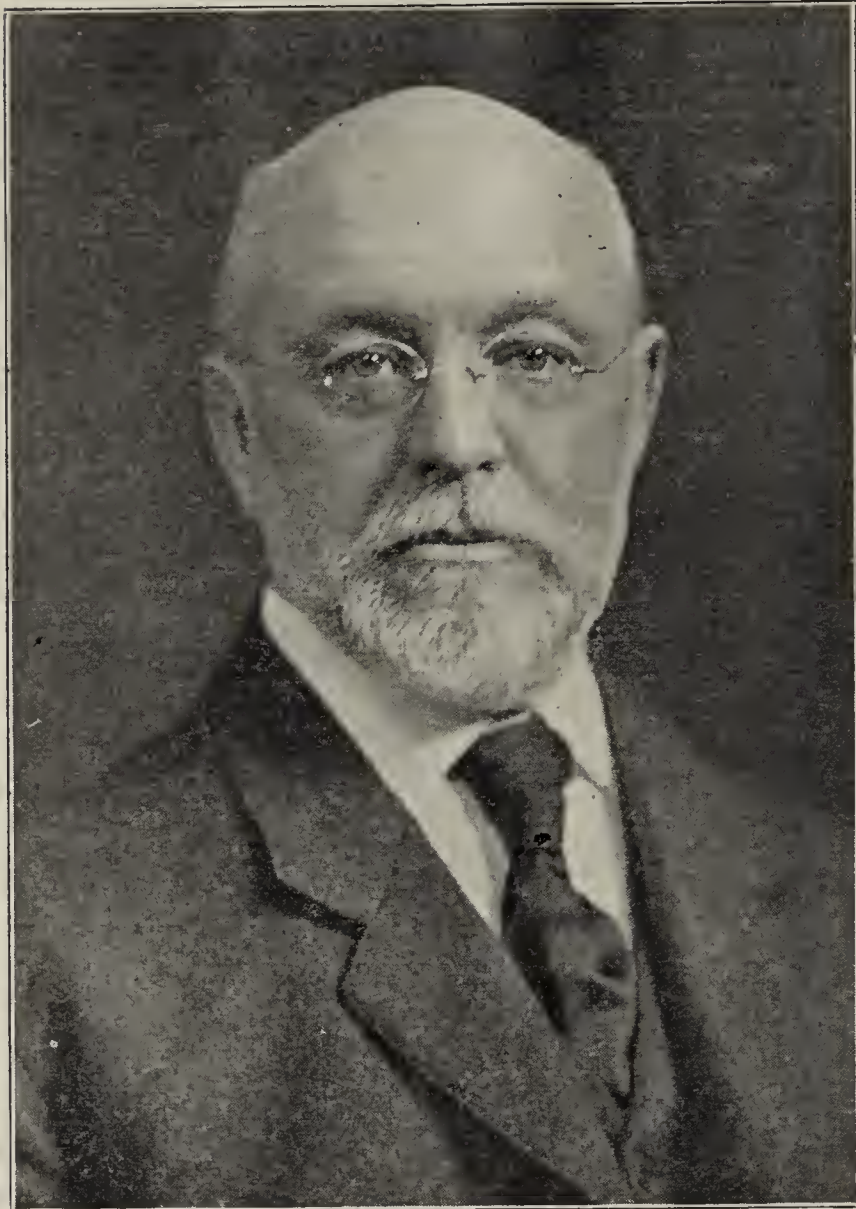
6—Election of Officers.

DAIRY TRAIN POPULAR.

Great interest is being taken in the dairy special train which is being operated over the line of the Chicago, Burlington & Quincy railroad by the State Dairy and Food Department of Iowa. "We have been forced to lengthen the schedule one day," said W. B. Barney, dairy and food commissioner.

One of the most popular features of the trip is the testing of cows by the experts accompanying the train. Farmers along the route are availing themselves of this opportunity of arriving at the butter fat capacity of their cows. As high as twenty head are brought at each town visited. The attendance has averaged better than five hundred people per meeting."

Referee Board Reports on Alum in Foods



PROF. IRA REMSEN,
Chairman.

EXPLANATORY STATEMENT

A report on the influence of aluminum compounds on the nutrition and health of man has been submitted by the Referee Board of Consulting Scientific Experts, in answer to questions put to it by the department. The report of the board itself, signed by each member, is brief, but it is accompanied by three elaborate reports giving the results of three sets of extensive experiments on human subjects conducted independently by three members of the board. To get the board's conclusions before the public at this time, it is considered advisable to publish its findings, but to omit the extensive reports of the three experimenters, giving only their final conclusions.

QUESTIONS SUBMITTED TO REFEREE BOARD

The questions submitted to the board were as follows:

1. Do aluminum¹ compounds, when used in foods, affect injuriously the nutritive value of such foods or render them injurious to health?
2. Does a food to which aluminum compounds have been added contain any added poisonous or other added deleterious ingredient which may render the said food injurious to health? (a) In large quantities? (b) In small quantities?
3. If aluminum compounds be mixed or packed with a food, is the quality or strength of said food thereby reduced,

lowered, or injuriously affected? (a) In large quantities? (b) In small quantities?

CHARACTER OF EXPERIMENTS CONDUCTED

In order to base their report upon first-hand knowledge, the board instituted three sets of experiments, each independent of the others. One set of experiments was conducted by Dr. Russell H. Chittenden, of the Sheffield Scientific School, Yale University, New Haven; another by Dr. Alonzo E. Taylor, of the Medical School of the University of Pennsylvania, Philadelphia; and the third by Dr. John H. Long, of the Northwestern University Medical School, Chicago. In each case tests were made on healthy young men by including aluminum in some form in their food. The food was all carefully measured and weighed and the amounts of its principal ingredients were determined by analysis. The excretions of the men's bodies (both urine and feces) were carefully collected, examined, and analyzed. Daily records of body weight, temperature, respiration, and pulse were kept for each man, and notes were made of any unusual symptoms. Any disturbance in health or physiological processes was thus detected.

Each experiment included three periods, in the first and last of which no aluminum was administered. During the middle period aluminum compounds were administered, the "dose" increasing as the experiment progressed. In this way the effect of large quantities was compared with that of small quantities. In Dr. Chittenden's and Dr. Taylor's experiments some of the men who served as "control" subjects received no aluminum at any time, so that any disturbances due to other causes might be checked up.

Dr. Chittenden's experiments included 12 men and continued from January 15 to June 22, 1912. During 130 days the diet contained bread raised with an alum baking powder made in the laboratory.² The dose of aluminum compound was increased from time to time, at first by increasing the quantity of bread and later by increasing the quantity of the baking powder used in making the bread. In this way the alum³ used per man per day was increased from 0.578 gram⁴ (8.920 grains) at the beginning to 2.287 grams⁵ (35.295 grains) at the close of the dosage period; the actual aluminum contained in this dosage ranged from 0.065 gram (1.003 grains) to 0.257 gram (3.966 grains) per man per day. Eight men used the alum bread, while four had no aluminum in their food.

Dr. Long's experiments ran from February 8 to June 7, 1911, and included six men, all of whom received the dosage. Baking powder bread was not used, but instead for 40 days a mixture of the same composition as the residue left in such bread by alum baking powder was administered in the form of a powder in water or milk. For 30 days the quantity of alum used was 2 grams⁶ (30.866 grains) a day for each man; in the next 10 days the dose was doubled. Afterwards for 30 days the baking powder residue

¹Aluminum is a synonym for aluminium, the metal used for cooking utensils and other implements. Alum or sodium aluminum sulphate is a salt of this metal.

was treated so as to wash out everything except the compounds of aluminum with hydrogen and oxygen (aluminum hydroxide), the dose at first being the amount obtained from 4 grams⁷ (61.732 grains) of alum per man per day, which was increased in the second 10 days to 6 grams⁸ (92.598 grains) and in the third 10 days to 10 grams (154.330 grains) of alum. Finally, in a period of 10 days, the dose was the sodium sulphate consumed when 4 grams of alum were used, this compound being the cathartic ingredient which is left in bread by alum baking powder.⁹

²This bread was made fresh every day and contained in one baking of two loaves approximately:

Sifted flour, quarts.....	2
Baking powder (25% calcined alum), heaping teaspoonfuls. 4	
Salt (approximately one rounder teaspoonful) ounce.....	$\frac{1}{3}$
Butter, ounce.....	1
Water, sufficient quantity.	

Later in the experiment a greater proportion of alum baking powder was used in the making of the bread in order to facilitate administering larger amounts of alum.

³The term "alum" as used under the heading "Character of Experiments Conducted" refers to the calcined sodic aluminic sulphate commonly used in alum baking powders and not to the ordinary crystallized alum.

⁴Equivalent to approximately two-thirds of a level teaspoonful of baking powder containing 25 per cent of alum. All the figures in this and succeeding footnotes must of necessity be approximate, since teaspoons vary in size and baking powders in composition.

⁵Approximately equivalent to 2 $\frac{2}{3}$ level teaspoonfuls of alum baking powder.

⁶Approximately equivalent to 2 $\frac{1}{2}$ level teaspoonfuls of alum baking powder. Equivalent to about 0.223 gram (3.44 grains) of aluminum.

⁷Approximately equivalent to 4 $\frac{1}{2}$ level teaspoonfuls of alum baking powder.

⁸Approximately equivalent to 6 $\frac{8}{10}$ level teaspoonfuls of alum baking powder. These amounts of alum are equivalent to about 0.44 gram (6.86 grains), 0.67 gram (10.29 grains), and 1.11 grams (17.15 grains) of aluminum.

⁹Editorial Note.—Sodium sulphate, or Glauber's salt, is a substance derived from the interaction of alum and baking soda in making bread with alum baking powders, and is of itself a cathartic, formerly much used medicinally. Cream of tartar baking powder, when used in bread, by a similar interaction, produces a cathartic substance known as sodium tartrate. Phosphate baking powders when used in making bread produce cathartic substance known as sodium phosphate. Cream of tartar and phosphate baking powders produce catharsis, similar to that produced by alum baking powders, when used in quantities.

¹⁰Approximately equivalent to a level teaspoonful of alum baking powder.

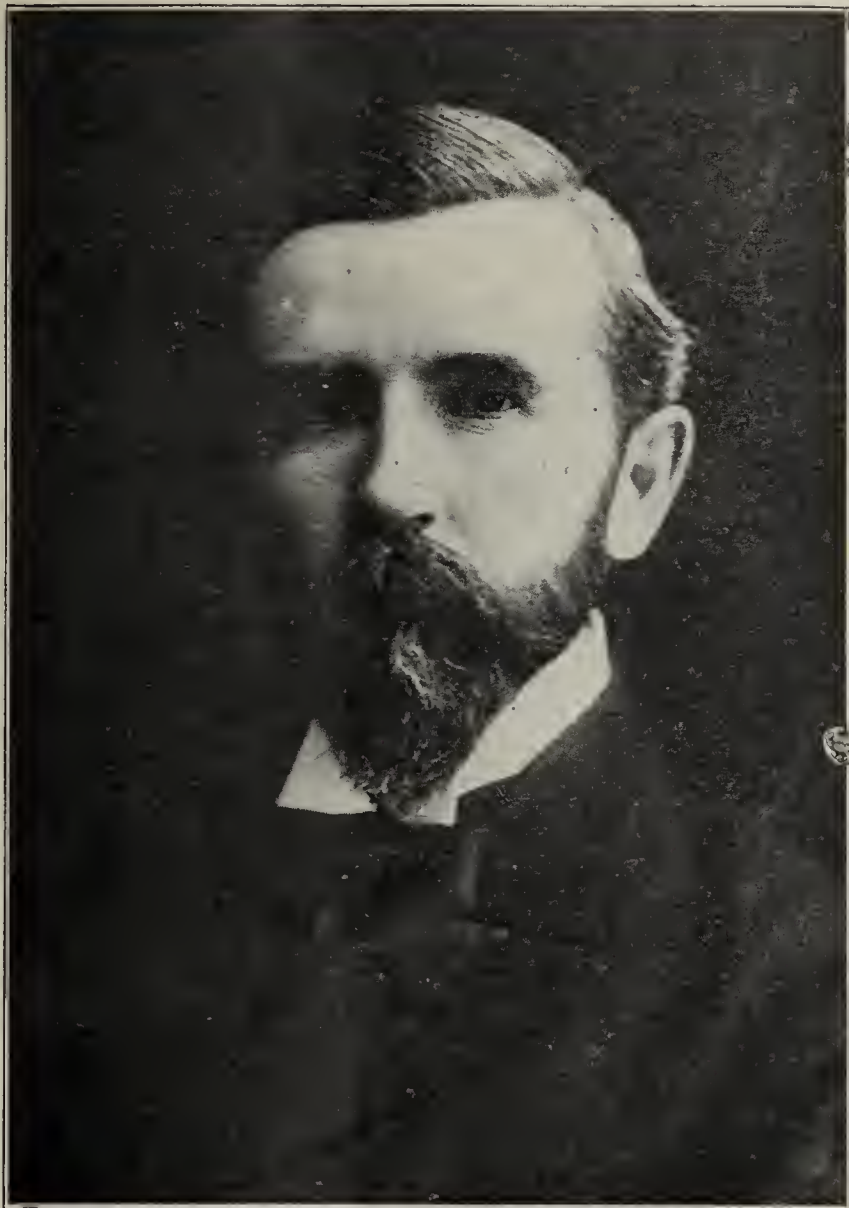
¹¹Approximately equivalent to 3 level teaspoonfuls of alum baking powder.

¹²Approximately equivalent to 2 $\frac{1}{4}$ level teaspoonfuls of alum baking powder.

¹³Approximately equivalent to 10 level teaspoonfuls of alum baking powder.

Dr. Taylor conducted experiments with a squad of eight men from October 8, 1911, to May 10, 1912, with an intermission from December 16 to January 14. In this case also the powder was not used in bread, but was administered in wafers or dissolved in water. Six of the subjects took the aluminum compounds, while the other two took milk sugar, the men themselves not knowing which they were taking. There were two groups of experiments in which the whole squad took part. In the experiments of the first group, which ran from October 8 to December 16, tests were made with alum alone. The dose at first was such as to give each man 0.1 gram¹⁰ (1.5433 grains) of aluminum a day and was increased from time to time until the daily dose was 0.298 gram¹¹ (4.599 grains) of aluminum for each man. The second group ran from January 14 to May 10. Tests were made with the residue from alum baking powder; tests were also made with certain aluminum compounds (aluminum hydroxide and aluminum chloride) which may be found in the residues from alum baking powders of different kinds, and with sodium sulphate, the purgative salt left in bread by alum baking powders. The smallest dose of the compounds containing aluminum gave each man 0.227 gram¹² (3.503 grains) of aluminum a day, while the largest dose gave 0.969 gram¹³ (14.954 grains) of aluminum a day. The dose of the purgative salt (sodium sulphate), in which there is

no aluminum, was 5.23 grams¹⁴ (80.714 grains) per man per day. Following these experiments four men took 1 gram (15.433 grains) of aluminum a day each for several days,¹⁵ and then their blood was tested to detect any aluminum that might be present in it. No aluminum was found in the blood. As a further indirect test to determine whether aluminum was resorbed, one man took for five days enough aluminum hydroxide to furnish 0.660 gram (10.186 grains) of aluminum a day and another took enough to give 0.540 gram (8.334 grains) a day for five days. The men were fed a diet of low and known phosphorus



DR. RUSSELL H. CHITTENDEN.

content and the excrements analyzed for phosphorus, in order to detect, if possible, signs of abstraction of this element from the tissues by resorbed aluminum. This test failed to demonstrate resorption of aluminum.

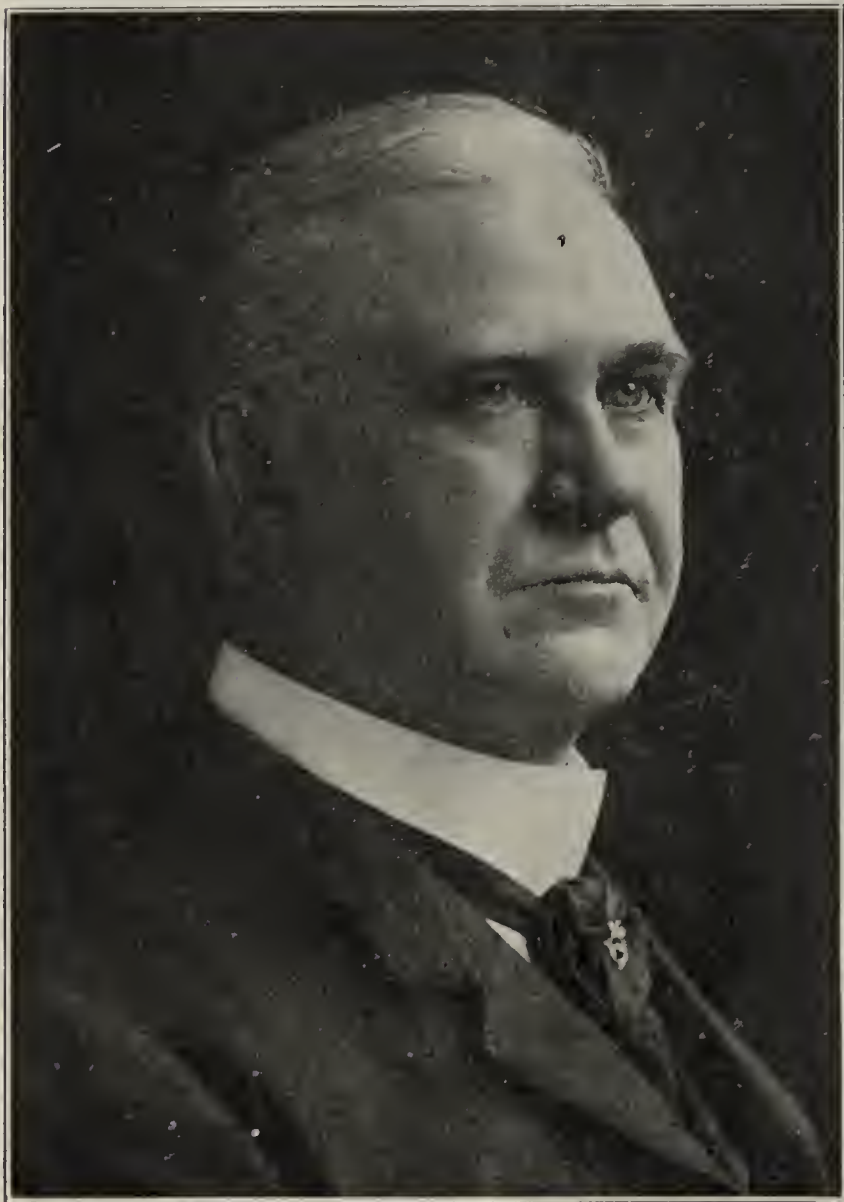
CONCLUSIONS OF INDIVIDUAL INVESTIGATORS

Dr. Chittenden concludes from his experiments that small quantities of aluminum compounds, and even comparatively large quantities, when taken daily with the food, have no effect upon the general health and nutrition of the body. "In other words," as he sums up his conclusions, "aluminum compounds when used in foods—as in bread—in such quantities as were employed in our experiments do not affect injuriously the nutritive value of such foods or render them injurious to health, so far as any evidence obtained in our experimental work indicates."

Dr. Long, in concluding his report, calls attention to the fact that alum is rather generally used in the manufacture of cucumber pickles. This is an old

practice which had its origin in the household rather than in the factory and is still common in the household. The hardening effect of the alum is believed to help in keeping the pickles. In the factory the cucumbers are first soaked for several weeks in strong brine, then in fresh water overnight, this process being sometimes repeated. Then the cucumbers are put into an alum liquor in which the weight of alum used is about one-fourth of 1 per cent of the weight of the cucumbers. The cucumbers and liquor are heated up to 120° or 140° F., then cooled and allowed to stand for from 6 to 24 hours. Then comes a bath in fresh water and afterwards the final treatment with vinegar. The vinegar takes out some of the alum from the pickles, so that usually the alum left in them amounts to less than two-tenths of 1 per cent.

Alum is also used in the preparation of maraschino cherries, and perhaps some other fruits. But the quantities of aluminum that might be consumed either in pickles or in the fruits referred to are so small, compared with the quantities actually consumed in



DR. JOHN H. LONG.

baking powders, that the study of alum baking powders may be taken to cover the entire field.

¹⁴About one-fifth ounce of Glauber's salt. (See footnote No. 9.)

¹⁵This corresponds to approximately 10 level teaspoonfuls of alum baking powder.

¹⁶Approximately equivalent to 4½ level teaspoonfuls of alum baking powder.

¹⁷Approximately equivalent to 2¼ level teaspoonfuls of alum baking powder.

¹⁸One-eighth to one-sixth ounce of Glauber's salt.

Alum, as such, is not present in the food when eaten. In the process of baking, the alum and soda in baking powder break up and recombine into several

compounds. One product is the carbonic acid gas, which does the work of leavening. This gas passes off, leaving in the bread an aluminum compound and a compound called sodium sulphate. Dr. Long concludes that the cathartic action of large residues from the alum and soda combination—for instance, the residue left when the large dose of alum, 4 grams¹⁶ (61.732 grains), was used—must be considered objectionable when administered daily. But this is much above the consumption in actual practice, and amounts of alum not above 2 grams¹⁷ (30.866 grains) a day—a liberal allowance—do not appear to be harmful in any practical sense. Since the quantities of aluminum compounds consumed with other foods are insignificant compared with the quantities consumed in foods prepared with baking powder, the findings from the study of baking powder residues must be held to cover all cases. Keeping in mind that the aluminum compounds actually in the food when consumed are comparatively inert, Dr. Long declares that “it can not be said that, when mixed with foods in the small quantities actually considered necessary, they add a poisonous or deleterious substance, or injuriously affect the quality of the food with which they are used.”

Dr. Taylor's conclusions agree in effect with those of his associates. He says, “We have had, unquestionably, evidences of the catharsis caused by the administration of large doses of baking powder.” With the large doses used in his experiments, the stools are increased in weight and frequency, the movements are loose, and colic is apt to attend the evacuations. This condition is the result of sodium sulphate, which, though not an aluminum compound, is a residue of the alum baking powder. But with very large doses of aluminum compounds occasional dry colic may also be noted.

“I personally,” says Dr. Taylor, “do not believe that it would be healthful for anyone, in camp or out of camp, to live upon a diet of baking powder biscuits. I do not believe that the regular ingestion of sodium sulphate in doses of from 3.5 to 5 grams¹⁸ (54 to 77 grains) per day, with the normal diet, resulting in distinct looseness of the bowels, is a procedure to be recommended. Prolonged administration of saline cathartics even in small dose tends to leave behind a condition of constipation; and it is certainly the experience of the medical profession that the practice of the regular administration of saline cathartics is not to be recommended. This aspect of the question is of course not peculiar to aluminum baking powder, but applies to all baking powders, since to a greater or less extent a saline cathartic remains as the residue of the reactions of all known baking powders, as demonstrated in direct tests with different baking powders on human subjects.¹⁹ There is no evidence in our results to indicate that the occasional and ordinary use of bread, biscuits, or cake prepared with aluminum baking powder tends to injure the digestion. The amount of saline cathartic that would be ingested under conditions of normal diet would be very small and would provoke no catharsis or symptoms of any kind.”

CONCLUSIONS OF THE REFEREE BOARD

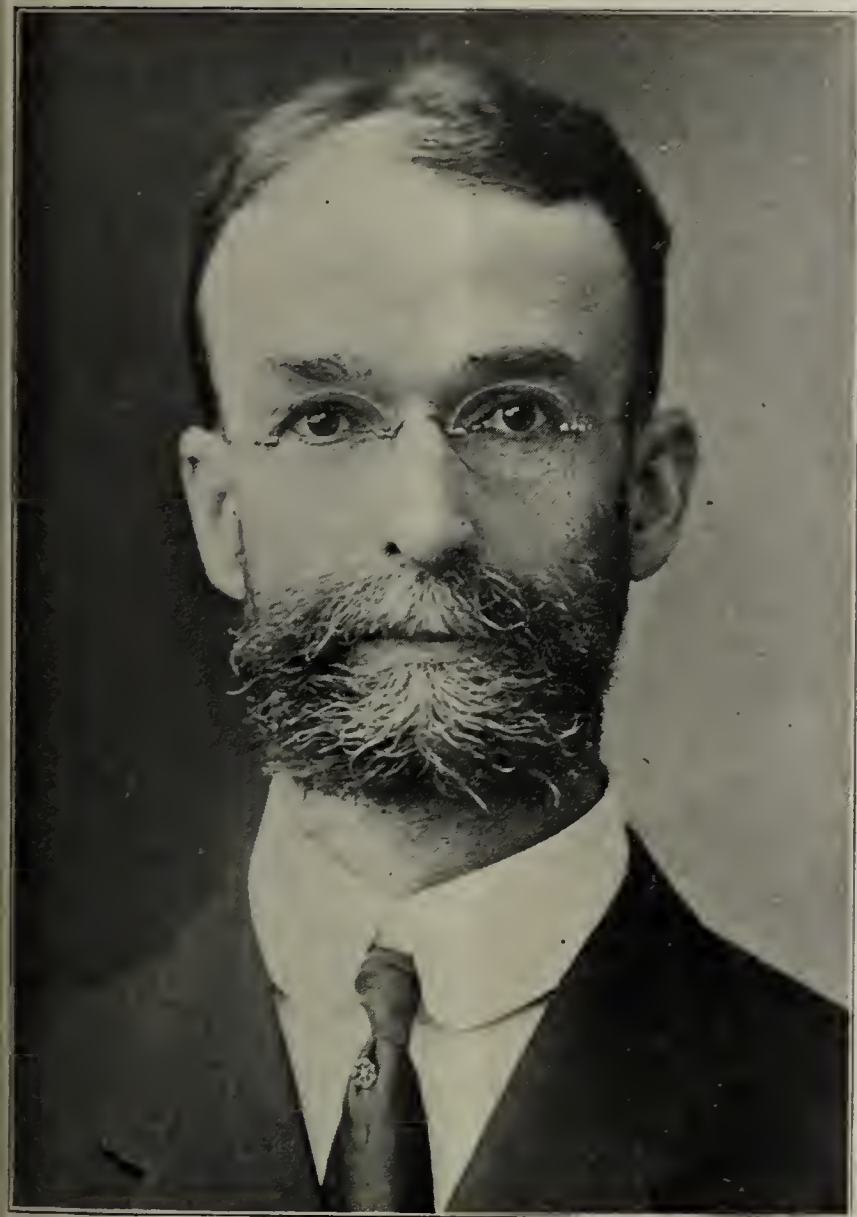
One other effect of the administration of compounds of aluminum is noted by Dr. Taylor, namely, a distinct decrease of phosphates in the urine and a corresponding increase of phosphates in the stools. But

the extent of this change is too slight for it to have any material meaning or effect.

With the results of these independent experiments agreeing so well, the Referee Board were enabled to draw up a unanimous report, signed by all the members, namely: Ira Remsen, president of Johns Hopkins University, chairman; Russell H. Chittenden, professor of physiological chemistry in Yale University and director of the Sheffield Scientific School; John H. Long, professor of chemistry in the Northwestern University Medical School; Alonzo E. Taylor, Benjamin Rush professor of physiological chemistry in the University of Pennsylvania; and Theobald Smith, professor of comparative pathology in Harvard University.

In their report the board first define their understanding of the terms "small quantity" and "large quantity," as applied to alum baking powders, as follows:

By the term "small quantity" we understand such an amount as may be ingested in the normal use of biscuits,



PROF. THEOBALD SMITH.

pastry, or other articles leavened with baking powder, as these foods are practically used in the ordinary American family. This amount will not average more than 25 to 75 milligrams²⁰ (0.39 to 1.16 grains) of aluminum daily for the days of consumption of such articles.

By the term "large quantity" we understand such an amount of aluminum as would be ingested only under very unusual conditions, as for example, where the flour consumption is mainly in the form of biscuits or other articles leavened with aluminum baking powders. This amount may reach 150 to 200 milligrams²¹ (2.31 to 3.09 grains) of aluminum per day. A person subsisting mainly on baking-powder biscuits, as may happen in camp life, might ingest an amount in excess of 200 milligrams per day. With this possibility in mind, we have also studied the effects of amounts up to

and exceeding 1,000 milligrams²² (15.4 grains) of aluminum per day.

¹⁹"We must not, however, be oblivious to the fact," says Dr. Taylor, who conducted part of these investigations, "that a saline cathartic residue results from the reaction of every form of known baking powder now commonly employed. The use of cream of tartar or tartaric acid baking powder leaves in the alimentary tract a residue of tartrates which exhibit the action of a saline cathartic and of diuresis [excessive excretion of urine] as well. The so-called phosphate baking powder leaves as a residue of reaction sodium phosphate, again a saline cathartic. And aluminum baking powder leaves as a residue of reaction sodium sulphate a saline cathartic. Apparently, therefore, at present at least, the use of baking powder is associated with the introduction into the alimentary tract of a certain amount of saline cathartic, the salt differing with the use of the particular type of baking powder."

With this understanding of the terms, the board give the following answers to the questions submitted to them:

Aluminum compounds when used in the form of baking powders in foods have not been found to affect injuriously the nutritive value of such foods.

Aluminum compounds when added to foods in the form of baking powders, in small quantities, have not been found to contribute any poisonous or other deleterious effect which may render the said food injurious to health. The same holds true for the amount of aluminum which may be included in the ordinary consumption of aluminum baking powders furnishing up to 150 milligrams (2.31 grains) of aluminum daily.

Aluminum compounds when added to foods, in the form of baking powders, in large quantities, up to 200 milligrams (3.09 grains) or more per day, may provoke mild catharsis.

Very large quantities of aluminum taken with foods in the form of baking powders usually provoke catharsis. This action of aluminum baking powders is due to the sodium sulphate which results from the reaction.

The aluminum itself has not been found to exert any deleterious action injurious to health, beyond the production of occasional colic when very large amounts have been ingested.

When aluminum compounds are mixed or packed with a food, the quality or strength of said food has not been found to be thereby reduced, lowered, or injuriously affected.

In short, the board conclude that alum baking powders are no more harmful than any other baking powders, but that it is wise to be moderate in the use of foods that are leavened with baking powder.²³

²⁰This is approximately equivalent to one-quarter to three-quarters of a level teaspoonful of alum baking powder.

²¹This is approximately equivalent to 1½ to 2 level teaspoonfuls alum baking powder.

²²Approximately equivalent to 10 level teaspoonfuls alum baking powder.

²³See footnotes, pages 3 and 6.

SOUTH DAKOTA FEASTING THE FISHES.

Food Commissioner Frury of South Dakota furnished a rich feast for the fish and other denizens of the Missouri river in the vicinity of Pierre, S. D., at the expense of a merchant of the capital city encouraged in his philanthropic act by the activity of the state food and drug department. There was soup a la vermicelli for the first course with the "vermi" in this instance meaning real worms furnished by the thickening, which consisted of 120 pounds of erstwhile pancake flour. Sixteen bottles of olive and 10 bottles of old Virginia corn relish furnished the appetizer of this course. The next course included a delicious salmon salad made from a collection of swells with the aid of four cans of salad dressing, seventy-five pounds of "meaty" English walnuts, sixty-two cans of old "swells" of fruit and a miscellaneous collection of jams, jellies and preserves, with three pounds of cayenne pepper thrown in to give the salad plenty of spice. For desert there was mince meat pie, with the emphasis on the meat, and ice cream made from an assortment of preparations said to make most delicious ice cream without the aid of cream. Then for good measure, and to make sure that the inhabitants of the big muddy might not soon forget their sumptuous repast.

Intermountain Commissioners Convene

FOOD CONTROL OFFICIALS RESOLVE TO WORK IN HARMONY IN ENFORCING IMPORTANT RULINGS

Salt Lake City, Utah, April 9.—Resolutions endorsing the recent action of the food commissioners of Washington, Oregon and Idaho in asking their congressional representatives to secure an investigation by the United States department of justice of an alleged butter trust existing in the intermountain states, were passed at the meeting of food and drug commissioners of Idaho, Montana, Wyoming, Nevada and Utah held yesterday in the offices of the Utah dairy and food bureau.

Following is the resolution in full:

"Whereas, the dairy commissioners of the states of Oregon, Washington and Idaho have appealed to their respective delegations in Congress, asking the Department of justice for the appointment of special agents to investigate the operations of an alleged butter trust in the intermountain states; therefore be it

"Resolved, believing as we do that such an investigation is warranted, that we pledge ourselves to at once join with them in soliciting the aid of our respective congressional delegations to this end.

"Another resolution passed related to sleeping in dining cars. The commissioners resolved that since the sanitary laws of all states prohibit persons sleeping in any bakeshop, kitchen, meat market or other places where food is served, that the practice general on the railroads, of allowing negro porters, waiters and cooks to use the dining cars for sleeping quarters is insanitary and a violation of these laws."

The meeting was a special one called at the request of James H. Wallis, state dairy, food and sanitary inspector of Idaho and president of the National Association of State and Federal Food Officials. A similar meeting of the officials of Washington, Oregon and Idaho was held recently in Spokane, Wash., and the principal object was to have the intermountain officials take up the subjects discussed there. Mr. Wallis presided at the meeting and Maurice Groshon, state dairy, food and oil commissioner of Wyoming, acted as secretary. Heber C. Smith, chief deputy of the Utah dairy and food department, acted for this state in the absence of Commissioner Willard Hansen, who is now in Minnesota.

Others present were Sanford D. Dinsmore, state food and drug commissioner of Nevada; Dr. W. F. Coggsell, secretary of the state board of health of Montana in charge of the enforcement of the food and drug law of that state; John P. Riddell, chief of the bureau of weights and measures of Montana; John K. White, chief deputy food, drug and dairy commissioner of Idaho; B. R. Harris, Idaho deputy food and drug inspector; George Shorten, Ogden food inspector; T. L. Irvine, Salt Lake City sealer of weights and measures; C. E. Condie, Utah state sealer of weights and measures.

Much of the time was devoted to talking shop and exchanging ideas as to what is needed in the line of new food, dairy, drug and sanitary regulations, and how the present statutes can better be enforced. One of the interesting things brought out was the an-

nouncement by Commissioner Wallis of Idaho that he is preparing a law to be presented to the next Idaho state legislature making it necessary for all cooks to pass an examination given by the state health and food department and receive a certificate before they can engage in their occupation.

"Plumbers and other tradesmen are required to have documents to show that they can do their work properly, and I think that the men who prepare our inside plumbing should be competent," said Wallis. "It is our plan to have every prospective cook present a proper health certificate and then demonstrate his ability to cook steaks and bake pies and handle food products in a sanitary manner before he can secure his license."

The suggestion was considered a good one by the other commissioners, and it is probable that other states will follow suit on this question.

Regulations regarding specific food, usually in the past adulterated or misbranded, were adopted. These regulations relate to vinegar, salad oils, olive oils, extracts, imitation lard, catsup, tomato puree, saccharine, adulterated coffee, benzoate of soda, refilling of catsup bottles, sardines in oil, short-weight butter, bleached flour, bread and evaporated milk.

Another very important matter disposed of was that of permitting the sale of baking powders containing albumen. All the commissioners present were unanimous in their conclusions that it was used for no other purpose than to deceive the consuming public and to make them believe that they are buying a powder better than other brands containing no albumen. The commissioners apparently had informed themselves on this question as they discussed it with a familiarity that showed they had investigated it in all its phases. The only question was as to the proper method of procedure under the laws of the different states represented, to stop its sale. A comparison of these laws showed that Idaho, Utah, Montana and Oregon had ample power to declare it an adulterated product because of the following provision in their statutes:

"For the purpose of this act an article shall be deemed to be adulterated. In case of Food: * * * *If by any means it is made to appear better or of greater value than it really is.*"

Commissioners Groshon, of Wyoming and Dinsmore of Nevada found that their laws did not have this protection, much to their regret. In other words, they found themselves in the same condition as did the Federal Board of Food and Drug Inspection when considering this question, viz.; that this part of the law had been emasculated and shorn of this additional protection when passed by the law making body. These commissioners, however, declared their intention to have their legislature amend their law in this regard; while all agreed that the quickest remedy for the federal government was to have a law passed by congress prohibiting the interstate shipment of baking powders containing albumen.

The ruling promulgated by the commissioner of Oregon was read and unanimously adopted as the

joint ruling of the commissioners present, declaring albumenized baking powders adulterated. As finally agreed upon, this joint ruling is as follows:

ALBUMEN IN BAKING POWDER.

Ruling on albumenized baking powders promulgated at a conference of Inter-Mountain Food Commissioners of Utah, Idaho, Oregon, Montana, Wyoming and Nevada, held in Salt Lake City, Utah, April 8, 1914.

"The essential elements of making powder are the active leavening agents and the necessary filler to prevent accumulation of moisture, and the consequent deterioration. Albumen or white of egg has no leavening power in the quantity used, and it performs no legitimate function in the consumption of the baking powder. It is added simply for the purpose of deception, to make the product 'appear better and of greater value' than it really is, and constitutes an inert ingredient substituted in part for the proper ingredients of a baking powder. The powder, therefore, which contains egg albumen is deemed to be adulterated under the law."

JAMES H. WALLIS,

State Dairy, Food and Sanitary Inspector of Idaho.

W. F. COGSWELL,

Secretary State Board of Health of Montana, in charge of the Enforcement of the Food and Drug Act.

HEBER C. SMITH,

Acting State Dairy and Food Commissioner of Utah.

J. D. MICKLE,

State Food and Dairy Commissioner of Oregon.

"We agree with the ruling promulgated by the Commissioners of Idaho, Montana, Utah and Oregon prohibiting the sale of baking powders containing egg albumen, for the reasons stated by them, and would join them in the prohibition if such action could be taken under our state laws. We regret the adulteration clause of our laws does not afford the same protection to our consumers against such fraudulent products, and trust that the Federal Law will be amended to forbid the interstate shipment of such baking powders."

MAURICE GROSHON,

State Dairy, Food and Oil Commissioner of Wyoming.

SANFORD C. DINSMORE,

State Food and Drug Commissioner of Nevada.

Commissioner Wallis of Idaho, stated to the conference that in order to be sure that he was within his rights in acting in this important matter under his law, he had requested the Crescent Manufacturing Company of Seattle, Washington, to submit to the Attorney-General of Idaho the legal phase of the question, as he did not want to involve a manufacturer in needless litigation, knowing full well that his Attorney-General would give the matter careful consideration and issue an opinion entirely upon the merits in the case. The full text of the opinion is as follows:

March 12, 1914.

The Crescent Manufacturing Company,
Seattle, Washington.

Gentlemen: I have before me your letter of January 16th in which you refer to a ruling made by the Pure Food Commissioner of this state prohibiting the sale in Idaho of baking powders, containing egg albumen. I have gone somewhat carefully into the matter of the use of egg albumen in baking powders, conferring with Mr. Wallis, our pure food commissioner, as well as reading carefully the statements which you

make in your communication. You seem to take the position that because egg albumen has been found by the Federal Government not to constitute an adulterant under the Federal Pure Food Act it does not constitute an adulterant under the Pure Food Act of the state of Idaho.

This position on your part makes it necessary to examine somewhat into the two acts as they now stand. It is provided in the Federal Pure Food Act, in Sec. 7 thereof:

"That for the purposes of this act an article shall be deemed to be adulterated. * * *

"In the case of food: * * *

4. If it be mixed, colored, powdered, coated or stained in a manner whereby damage or inferiority is concealed."

The Pure Food Act of the State of Idaho is largely copied from the Federal Pure Food Act but has certain additions or enlargements. The provision of our state statute corresponding to the provision of the Federal statute just above quoted reads as follows:

"That for the purpose of this act an article shall be deemed to be adulterated: * * *

"In case of food * * *

"4. If it be mixed, colored, powdered, polished, coated or stained in a manner whereby damage or inferiority is concealed, *or if by any means it is made to appear better or of greater value than it really is.*"

It will be observed from a comparison of these two provisions, one of the Federal and the other of our State Pure Food Act, that the Idaho act is broader than the Federal act, since it includes the matter referring to the use of any means by which an article is made to appear better or of greater value than it really is.

The question next arises as to whether the Pure Food Commissioner of Idaho is bound by the rulings of the Federal Pure Food Board in matters of this nature. If the egg albumen in baking powders has been declared not to constitute an adulterant under the Federal Pure Food Act, can it be declared an adulterant under the Idaho Pure Food Act?

Sec. 11 of the Idaho act provides as follows:

"Sec. 11. That the standards of quality, purity, and strength for food, liquors, drugs and strong drinks that have been or shall be adopted by the United States Department of Agriculture are hereby declared to be the standards of purity, quality and strength for foods, liquors, drugs and drinks in the State of Idaho."

It will be noticed that this section simply prescribes that the *standards* of quality, purity and strength which may be adopted by the United States Government shall be the standards which shall apply in the state of Idaho and has no references, I take it, to the question of whether or not a given article of consumption may be held to be adulterated under the Pure Food Act of this state even though the same may not be considered as adulterated under the National Pure Food Act.

It is, of course, desirable to conform our state rulings in matters of this nature as closely as possible to the rulings of the Federal Pure Food Board, but this rule should be looked upon as a limitation of state action only in cases where the provisions of the state and Federal laws are substantially the same. Where our state law gives protection superior to that afforded by the Federal statute there would seem to be

superior advantages afforded by the provisions of our state law.

As I understand the matter, the albumen used in baking powders consists of the dried white of eggs. no good reason why we should lose or surrender the The presence of this egg material adds nothing to the value of the powder considered as an ingredient of food, nor does it take from the value of the ingredients from which food is made. It is, in effect, the addition of a harmless substance. It appears that the sole purpose in adding egg albumen to baking powders is found in the fact that because of its adhesive nature, it arrests the gas which is formed by the addition of water to the baking powder and produces a foam, giving the general appearance of having more leaven than those brands of baking powder which contain no albumen.

My attention has been called to powders used in certain advertisements wherein are shown three glasses, in each of which a small quantity of baking powder is placed and to which a little water is added. The two glasses containing the baking powder having no albumen show very little effervescence while that containing the albumen powder is shown with the mixture to be protruding from the top of the glass. The two brands containing no albumen may be in every particular just as high grade and efficient as the one containing the albumen, but the customer is persuaded by this show to believe that a hidden virtue is contained in the baking powder containing the albumen for the reason that when water is added to it a foam is produced and an ocular demonstration afforded of its seeming superiority.

It seems, therefore, too clear for argument that the use of egg albumen in baking powder results in an appearance of greater value than the powder really possesses and therefore constitutes an adulterant under the section of our Pure Food Act quoted above.

There is, however, another consideration to which attention might well be called. In that part of our law relating to the adulteration of foods, Sec. 5, it is provided that a food may be considered adulterated "if any substance has been mixed or packed with it so as to reduce or lower or injuriously affect its quality or strength." Since albumen adds nothing to the effectiveness of baking powder it may well be concluded that when so added it necessarily has the effect of reducing or lowering the quality or strength of the powder. Suppose, for instance, that baking powder should contain one-half albumen, it would then have but one half the strength which would be found in the same quantity of the powder if not so mixed with albumen. Its efficiency or strength would by the addition clearly be lowered by one half and must be proportionately lowered no matter how small the quantity of albumen may be which is actually added.

It is my conclusion from a review of this entire matter that there is ample authority under our law for our Pure Food Commissioner to promulgate a ruling which would bar the sale in this state of baking powders which contain egg albumen. Having determined that this authority of law exists, I must leave the matter of the issuing of such a ruling entirely to his discretion. He is charged with the responsibility of enforcing the Pure Food Law and if it should be his opinion that, for the purpose of protecting the people of the state of Idaho from being imposed upon in the sale of baking powders, such ruling should be made, it is a matter

which comes entirely within his discretion and he must take the entire responsibility for his decision.

Yours very respectfully,

J. D. PETERSEN,
Attorney-General.

Another interesting feature was the reading of the following letter from Professor H. L. Walters, Professor of Chemistry in the Boise High School, who was employed in the Food and Drug Laboratories for several years, and who since then has taught chemistry at the universities of Utah and Washington. Commissioner Wallis stated that the letter came without any solicitation on his part, and in the nature of surprise to him. The letter is as follows:

Public Schools, Boise, Idaho, March 27, 1914.
Mr. James H. Wallis, State Dairy, Food and Sanitary Inspector, Boise, Idaho.

Dear Sir: I have noted with pleasure your decision in regard to the use of albumen in baking powders. Whether or not all the manufacturers of such baking powders deliberately try to deceive the people I am not in a position to say. I am, however, convinced that the consumers are deceived in nearly all such instances and I am also convinced that many of the manufacturers have deliberately deceived. Whenever a demonstrator of a baking powder shows the water glass test, comparing his own powder which contains albumen with a baking powder which does not contain albumen, he is, deliberately deceiving the public, making the consumer believe that his article is far superior in leavening power to others, when the facts do not in the least warrant the conclusion. Many of these baking powders contained statements on the label and in the advertising matter to the effect that the albumen contained therein reduced the amount of egg required from one-third to one-half. This was an absolute falsehood which the following figures will show. Using the figures which the companies themselves give regarding the albumen content of their powders, they contain approximately fifteen one-hundredths of one per cent. In baking biscuits for from four to six persons about one ounce of baking powder is used. In that case the weight of the albumen used is fifteen ten-thousandths of an ounce, or sixty-six one-hundredths of one grain. If a single egg has been used the amount of albumen calculated to dry basis would have been approximately one-hundred and twenty-five times as much. In addition the yolk would have been present and both would add materially to the food value. Experiments in great numbers have conclusively proven that the leavening power of baking powders containing egg albumen is not in any way greater than of those containing no albumen. In fact I believe many of the manufacturers are admitting that fact now by removing such a claim from their labels and claiming only that the albumen furnished a quick means of testing the efficiency of the powder. I believe that the following will prove to you that even that claim is unwarranted. In a census of 36 girls in my classes in Food Chemistry at the Boise High School not one was aware of the fact that companies put it in their powders for the sole (?) purpose of furnishing the housewife a means of testing the efficiency of the powder, although many of them were actually using such powders in their homes. This to my mind is strong evidence that it is very rarely "tested" in that way. Moreover, I can see no good reason for testing a baking powder by the water glass test, for if the housewife

actually made the test it would be of value only in case she always used the same amount of powder and the same amount of water for the test and also a glass tumbler of the same capacity and shape. The method of stirring, and even temperature would influence to a very large degree the "apparent" amount of gas. Also it would be necessary for her to have a baking powder of known strength and containing the same percentage of albumen to compare with or it would mean nothing to her at all. If she made this test without such a "control," or compared it with a perfectly efficient baking powder which contained no albumen, she would be very likely to think it excellent in strength even though it were very inferior. If I had time and opportunity I would like to make a canvass of users of baking powders containing albumen to determine how many of them ever make the water glass test (?). I venture to say that the percentage of those making the test would be about equal to the percentage of albumen contained in the albumen baking powders, fifteen one-hundredths of one per cent. I also believe that not 10 per cent of those actually making the test would give a quantitative interpretation to their results and 90 per cent of those would be erroneous.

It may be of some interest to you to know that I took a census of the girls in my classes in food chemistry as to the value of egg albumen in baking powders. Out of 36 girls canvassed 32 thought it was to take the place of eggs usually used in baking. One said she thought it was to help it keep its strength, and three answers were indefinite.

The conclusion I draw from this canvass is that the consumers believe that the albumen actually takes the place of eggs usually used, when as a matter of fact it does not. It is my hope that the manufacturers will discontinue the use of egg albumen in baking powders as its only effect is to fool the consumers.

Respectfully,

(Signed) H. L. WALTERS.

At the conclusion of the conference of intermountain state food officials here today the delegates to the convention went out and investigated the short-weight butter situation personally.

Only one package of butter weighing sixteen ounces was found in all Salt Lake by the food commissioners, who were sent out to examine conditions on the local market. All other packages of butter purchased by them varied in weight from 14 31-32 ounces to 15 19-32 ounces. In each case, excepting one, the vendor of the butter signed a receipt saying he had sold the one pound of butter. The packages were stamped in various weights ranging from 15 ounces to 16 ounces. James H. Wallis, pure food inspector of Idaho, conducted the investigation and characterized the practice of placing less than 16 ounces of butter in the packages as "just plain stealing."

When the convention of the food commissioners ended yesterday Mr. Wallis delegated S. C. Dinsmore of Nevada, Dr. W. F. Cogswell of Montana and T. L. Irvine and C. E. Condie of Salt Lake to visit various stores and buy butter. The commissioners were instructed specifically to ask for "one pound of butter" and when it was delivered and paid for to get the signature of the establishment selling the butter to a receipt. Mr. Dinsmore made the purchases and Dr. Cogswell accompanied him as a witness. The clerks or managers at all stores signed the receipt with the

exception of the United Grocery, which would only receipt for "packages" instead of pounds.

The first package of butter which was weighed by the commissioners was bought at the Sanitary market. The butter is known as the Pine Tree brand and is packed at Manti. The package was marked "guaranteed to contain 15½ ounces net." When the butter was weighed it was found that there was 15 9-16 ounces.

At the People's Cash Store a package of People's Full Cream Butter marked "contained 15 ounces net, when made," was found to contain 14 31-32 ounces.

Miller's Meat Market sold the commissioners a package of Banquet butter packed by Nelson & Ricks. It contained 15 5-16 ounces.

The Union Produce Company sold some Cloverbloom brand packed by Armour & Co., which contained 16 7-32 ounces. The Gold Nugget brand packed in Salt Lake, purchased at the same establishment, contained 15 19-32 ounces. The Gold Nugget package was marked "15 ounces."

"Short weight butter is nothing more or less than robbery," said James H. Wallis, after the weights had been announced. "In one year it amounts to more than \$35,000 in Salt Lake alone. The half or quarter ounces which butter users don't get by this process would give some child butter on two or three more slices of bread.

"It does not make any difference whether the packages are marked less than one pound or not. That is a subterfuge on the part of the packer of the butter, who is taking away a cent or two of the people's money without giving value in return. If this had happened in Idaho I would have had every man who sold the butter arrested and brought into court to tell why he sells short-weight butter. I would not 'pick on' the grocer, but I would go after the manufacturer and the packer and he would not get off on a promise to do better.

"Some of the companies which packed the butter purchased by Mr. Dinsmore and Dr. Cogswell in Salt Lake ship butter into Idaho in packages. The packages which they ship into our state contain sixteen ounces and there are none which are marked fifteen ounces either. They keep this butter for Utah consumption. They cannot ship it across the line into Idaho, for they know they would be arrested.

"You pay the same money for less than a pound of butter in Utah that we pay for one pound in Idaho. Prosecutions every day are necessary to break up this practice. We stopped it in Idaho and are not having any trouble now. Every pound of butter sold in Idaho weighs sixteen ounces, no matter whether it comes from Utah, Oregon or Chicago. Let the packers be fair with the people and give them what they think they are getting through the confidence reposed in the business men of the community."

OLD CHEMISTS' SUPPLY HOUSE.

A new name on our list of advertisers is E. H. Sargent & Co., one of the oldest and largest chemists' supply houses in the United States. They carry a very complete line of high grade apparatus and chemicals and cater largely to the food chemist. An apparatus engineer backed by an efficient manufacturing department is prepared to furnish special styles of apparatus to suit any demand. The courtesies of the establishment are offered to its customers.

score for freedom from tuberculosis. A great many municipalities and states have laws requiring the testing and removal of cattle suffering from tuberculosis. It has been found impractical to enforce these laws unless the dairyman is partly reimbursed for the loss of his reacting cows. When this is done there is no special reason why tuberculosis in cattle should not be abolished. The sentiment of the dairymen is as a rule against tuberculin testing. It is simply a commercial proposition to him. On the other hand if a dairyman is assured that his loss will be nothing or at least very small, he is more receptive to its need. An inspector should devote every effort to persuade the dairyman to have his herd tested by a commissioner veterinarian under the supervision of the health authorities. With proper state quarantine against infected cattle and a vigorous prosecution of the work, allowing the loss to fall proportionately on the community, it would not be difficult to rid a state of bovine tuberculosis.

Equipment.	Score.
	Perfect. Allowed.
Food (clean and wholesome).....	1

Food should be clean, fresh and wholesome. Rancidity, mustiness, and dirty feed should not be allowed. The feeding of slops, fermented brewery waste and grains, decayed silage, and other moist materials tend to cause bad odors in the dairy. These materials will cause an increase in bacteria, yeasts and moulds. In a great many instances the cows are unfavorably affected. Most authorities forbid the use of these feeds for dairy cattle.



WELL PROTECTED FROM SURFACE CONTAMINATION.

Equipment.	Score.
	Perfect. Allowed.
Water (clean and fresh).....	1

Nothing is more important than an abundant supply of good water. Water which is exposed to dangerous contamination should give a score of 0 to the dairy. A shallow well in the barn lot can in nearly every instance be condemned. A deep well subject to surface contamination is just as bad. A driven well over fifty feet deep, carefully protected from surface contamination may be pure. Notice should be taken of watering troughs and tanks. Green scum and dirt and the presence of fowls should not be allowed. The watering place should show every evidence of care in being kept clean.

Equipment.	Score.
Stables.	Perfect. Allowed.
Location of stable.....	2
Well drained	1
Free from contaminating surroundings	1

The stables should be so situated that the drainage slope on every side is away from it. In a rolling country this can be easily arranged, but in low, flat country drainage is a problem. The land should be tiled or ditched to allow proper drainage. Again it is advisable in low, level land to surround the barn with gravel, shells, cinders or anything which will raise the level. The dairy should be away from horse stables, outhouses, chicken houses, hog pens, manure piles, etc., anything which might tend to breed flies or create insanitary conditions. Mud holes and depressions under or around the dairy likely to hold water should be considered contaminating.

Equipment.	Score.
	Perfect. Allowed.
Construction of stable	4
Tight, sound floor and proper gutter....	2
Smooth, tight walls and ceiling.....	1
Proper stall, tie, and manger.....	1

The floor should be tight and should be made of material which will not absorb liquids or odors. Concrete is the best material; although when cattle are kept for days or over night even in the stable, this material is cold to the bodies and hard on the hoofs. This can be prevented by covering the concrete in the stalls with cork or a removable wood floor. An earth floor is undesirable. The gutter should always be made of concrete and should be from six to eight inches deep and from fourteen to sixteen inches wide, draining to the end of the stable. A gutter should be so arranged and of such size that a cow will not soil herself on lying down when kept in the stable over night. A board gutter is not satisfactory. This is especially bad when there are holes bored at regular intervals to allow the liquid material to run under the stable.

The walls and ceilings should be smooth with a minimum of crevices where dust and cobwebs can collect. The ceilings should be tight especially when there is a loft in the barn in order to keep dust and feed from sifting through. Exposed cross beams and studding collect cobwebs and dust. The stall and mangers should be simple of construction, giving no spaces for the collection of dust. The manger should be so constructed so as to be easily cleaned, preferably of concrete. There should be no crevices and the corners should be rounded. A heavy wood stall and manger prevent thorough circulation of air. The simplest and best stall is constructed of iron piping. Stanchions should be used instead of the rope tie. These allow the animals freedom of movement in standing or lying down but keep them out of the gutter.

Equipment.	Score.
	Perfect. Allowed.
Provision for light: Four sq. ft. of glass per cow	4
(Three sq. ft., 3; 2 sq. ft., 2; 1 sq. ft., 1. Deduct for uneven distribution.)	

Light, especially direct sunlight, is an excellent destroyer of bacteria. The whole interior of the stable should be well lighted. There should be no dark corners. Wooden shutters are sometimes used. These are kept open in the summer and in good weather; but are closed in bad weather, and are not only closed in winter but are sometimes nailed down. This makes the barn damp and dark. Glass windows should be provided. This allows the entrance of light, but at the same time keeps the inside temperature equitable. In figuring the amount of light allow for the number of stalls. Deduct for unequal distribution.



INSANITARY CONDITIONS.

Equipment.	Score.
	Perfect. Allowed.
Bedding	1

In warm climates such as exists in the southern part of the United States, the cows are not kept in the stables for any length of time except for a very short period of the year. In some instances in cold weather cows are kept over night in the stables. Except in very cold weather they are out of doors during the day. Under these conditions no bedding is necessary. In cold climates where cows are kept in the stable for weeks at a time, the bedding becomes a very important matter. Nothing but good, clean material should be used; and this should be frequently renewed. Shavings and coarse sawdust are good. If straw is used it should be clean and give off no dust. Mouldy hay or straw should not be used.

Equipment.	Score.
	Perfect. Allowed.
Ventilation	7
Provision for fresh air, controllable flue system	3
(Windows hinged at bottom, 1.5; sliding windows, 1; other openings, 0.5.)	
Cubic feet of space per cow, 500 ft....	3
(Less than 500 ft., 2; less than 400 ft., 1; less than 300 ft., 0.)	
Provision for controlling temperature.	1

The subject of the proper control of ventilation is of far more importance in northern sections of the country than in the south. In northern climates the ventilation must not be at the expense of warmth; in the extreme south, the temperature of the stable need rarely be considered. Some type of automatic system receives the highest score. These are of different kinds, one of the most efficient being invented by Professor King. Windows hinged at the bottom, sliding windows, and even cracks and holes receive some consideration. Ventilation and air space should be so arranged that after keeping cows in a stable all night, the room should be warm but should not contain disagreeable odors. In finding the cubic feet of air space, the dimensions of the room should be multiplied together, and the product divided by the number of stalls in the stable. Overcrowding should always be prevented.

In the provision for controlling temperature windows and doors should be considered. Open cracks and holes and a barn with no side should manifestly not have credit for this.

Equipment.	Score.
Utensils.	Perfect. Allowed.
Construction and condition of utensils.....	1

Utensils should be simple in construction with no difficultly accessible parts. All seams should be soldered flush. Wire strainers should not be used as they are very hard to clean properly. All utensils should be free from rust. A rusty vessel is difficult to clean thoroughly.

Equipment.	Score.
	Perfect. Allowed.
Water for cleaning	1
(Clean, convenient, and abundant.)	

The necessity of a pure water supply has been spoken of before. It is just as important to have pure water for cleaning purposes as for drinking. An inspector is able almost to judge the cleanliness of the utensils by the convenience and abundance of the water supply. When it is abundant there is no fear of using too much. When it is convenient, the tendency to use it is increased with better results from a sanitary standpoint.

Equipment.	Score.
	Perfect. Allowed.
Small-top milking pail	5

Undoubtedly the small-top milking pail is one of the best phases in the production of pure milk. Its value has increased two points on the score card within the last year. Its value can be easily shown by this practical application—after milking in a pail of this kind, note the amount of dust, dirt and hairs on the top of the cover. If this cover were not on the pail, the material seen would have all been in the milk. The pail should be simple in construction with a cover protecting all the surface when the pail is exposed under the cow. The two principal types of pail are shown in the figure.

MILK PAILS AND MILK SUITS.

Equipment.	Score.
	Perfect. Allowed.
Milk cooler	1

Milk coolers are handy for the rapid cooling of milk



MILK PAILS.



MILK SUITS.

as soon as drawn. One point is allowed on the card for having one in use. Care should be taken that the surface of the cooler over which the milk runs is kept thoroughly clean and protected from dust, especially when the milk is flowing over the cooler.

Equipment.	Score.
	Perfect. Allowed.
Clean milking suits	1
Milking suits should be kept for wear while milking. These should be used only when milking and should be kept clean. The suits should be washable and preferably of a light color.	
Equipment.	Score.
Milk room or milk house.	Perfect. Allowed.
Location: Free from contaminating surroundings	1
Construction of milk room.....	2
Floor, walls, and ceiling.....	1
Light, ventilation, screens	1

wash room, and a boiler room. This is rather costly, however, and most dairies have only a single room. The room where the milk is handled should have tight, smooth floors, walls and ceilings so that they can be easily cleaned. The floor should be of concrete easily drained. This room should have plenty of light and ventilation, and all openings should be thoroughly screened. The presence of flies in the milk room should not be tolerated. Only necessary apparatus should be allowed in this room. In a well equipped dairy, the milk room will contain a balance for weighing, a fat tester, a separator, a bottler, a milk cooler, an ice box and a working table. The wash room should contain a bottle washer, a sink, a steam box for sterilizing purposes, a draining rack, and all utensils for handling milk. This should also be well lighted, venti-



AN OLD DAIRY BARN REMODELED TO SCORE 90.

Separate rooms for washing utensils and handling milk	1
Facilities for steam	1
(Hot water, 0.5.)	
Total	40

Every dairy barn should have a milk room or a milk house. This place should be in close proximity to the barn, but should not open directly into it. If the milk room is a part of the barn, or if it is a separate building, there should be a well ventilated passageway from the barn proper to the place where the milk is handled. The best type of milk house consists of a milk room, a

lated and screened. The boiler room need contain only a small boiler and a fuel bin.

Steam is necessary for proper sterilization of utensils. The average dairy, however, is not equipped for this. The handling of milk and milk utensils in the kitchen instead of in a properly equipped milk house is not conducive to good results from a sanitary standpoint.

Methods.	Score.
Cows.	Perfect. Allowed.
Clean	8
(Free from visible dirt, 6.)	

The score for methods should be made if possible when the milking is being done.

The cleanliness of the cows is an important item as witnessed by the large score allowed. A herd to receive a perfect score should be well groomed, and should have no long hairs on flanks and udder. Free from visible dirt is allowed a score of 6. Dust on back should reduce the score. Dirt in feet and ankles will reduce the score. Dirt and manure on sides, belly, udder or flanks should reduce the score very materially.

Methods.	Score.	
Stables.	Perfect.	Allowed.
Cleanliness of stables	6	.....
Floor	2	
Walls	1	
Ceiling and ledges.....	1	
Mangers and partitions.....	1	
Windows	1	

The interior of a stable should present evidence of the use of whitewash at a time not too remote. It is a good plan to whitewash the interior of the barn twice a year. The floor should be kept clean by frequent washing. The walls and ceilings should be free from cobwebs and dirt. The mangers should be clean and sweet smelling. Dirt and fermented feed should not collect in the corners of the mangers. All ledges should show the absence of dust.

Methods.	Score.	
	Perfect.	Allowed.
Stable air at milking time.....	5	.....
Freedom from dust.....	3	
Freedom from odors.....	2	
Cleanliness of bedding.....	1	.....

The presence of dust may be caused by feeding just before milking. No disagreeable odor should emanate from the stable during milking time. Disagreeable odors may be caused by lack of ventilation, lack of cleanliness in the stable and wet, decomposed or fermented feeds.

When cows are kept over night in the stable it is necessary to provide clean bedding.

Methods.	Score	
	Perfect.	Allowed.
Barnyard	2	.....
Clean	1	
Well drained	1	

Accumulations of manure and trash should not be allowed in the barnyard. The place should be so drained that pools of water or waste liquids can not collect.

Methods.	Score.	
	Perfect.	Allowed.
Removal of manure daily to 50 feet from stable	2	.....

The manure should not be piled so that the cows can get to it. It should be placed far enough away to preclude the possibility of flies breeding in it and infesting the stable. Manure should be hauled to the field immediately or if this is not possible, to a covered pit or well protected pen.

Methods.	Score.	
Milk room or milk house.	Perfect.	Allowed.
Cleanliness of milk room.....	3	.....

The milk room or milk house where the milk is cooled, bottled and stored should be especially clean. No odors of sour milk or other disagreeable odor should come from the milk room. The presence of flies should materially reduce the score. Where a milk house containing two or more rooms is used, the milk room proper should receive most attention.

Methods.	Score.	
Utensils and milking.	Perfect.	Allowed.
Care and cleanliness of utensils.....	8	.....
Thoroughly washed	2	
Sterilized in steam for 15 minutes.....	3	
(Placed over steam jet, or scalded with boiling water, 2.)		
Protected from contamination.....	3	

In washing utensils which have contained milk, cold water should be used for rinsing; then the utensils should be washed with hot water, and lastly rinsed with boiling water. They should be placed where they can drain thoroughly preferably in the open air. When a steam boiler is used arrangements can be made to admit live steam into a closed room, which should be fitted with racks on which the utensils can be inverted. Fifteen minutes of this method of sterilizing gives a score of three.

Dirt should be carefully looked for in crevices in utensils and especially in wire strainers.

Methods.	Score.	
	Perfect.	Allowed.
Cleanliness of milking.....	9	.....
Clean, dry hands.....	3	
Udders washed and wiped.....	6	
(Udders cleaned with moist cloth, 4; cleaned with dry cloth or brush at least 15 minutes before milking, 1.)		

The extreme importance of cleanliness in milking is shown by the high score given to it. Milking with wet hands is a most disgusting habit and cannot be too strongly condemned. The udders should be thoroughly clean; dust and dirt here will make the milk insanitary and increase heavily the bacterial count. Washing the udders with dirty water and unclean rags is worse than useless. Brushing the udder just before milking causes the dry dirt to come off as dust and settle in the milk.

Methods.	Score.	
Handling the milk.	Perfect.	Allowed.
Cleanliness of attendants in milk room.....	2	.....
Milk removed immediately from stable without pouring from pail.....	2	.....
Cooled immediately after milking each cow.	2	.....
Cooled below 50° F.....	5	.....
(51° to 55°, 4; 56° to 60°, 2.)		
Stored below 50° F.....	3	.....
(51° to 55°, 2; 56° to 60°, 1.)		
Transportation below 50° F.....	2	.....
(51° to 55°, 1.5; 56° to 60°, 1.)		
(If delivered twice a day, allow perfect score for storage and transportation.)		
Total	60	.....

The inspector will be able to judge of the cleanliness of the milk room operator. Special note should be taken of his hands and finger nails.

In order to keep the milk clean and keep down the bacterial count, it is necessary to remove it as soon as possible from stable conditions and cool it immediately. Cooling is best done by running the milk in a thin layer over a surface cooled with ice. This film of milk should be protected from atmospheric contamination. The milk should not only be cooled but kept cool until delivered. The score card allows a perfect score for storage and transportation, taking into consideration that the age of the milk will increase the bacterial count.

Below is given Twenty Dairy Suggestions with Special Reference to Sanitation from the Dairy Division, Bureau of Animal Industry, United States Department of Agriculture:

Twenty Dairy Suggestions with Special Reference to Sanitation.

(United States Department of Agriculture, Bureau of Animal Industry, Dairy Division.)

THE COWS.

1. Have the herd examined at least twice a year by a skilled veterinarian. Promptly remove animals suspected of being in bad health. Never add an animal to the herd until certain it is free from disease, particularly tuberculosis.



A GOOD SANITARY COUNTRY BARN.

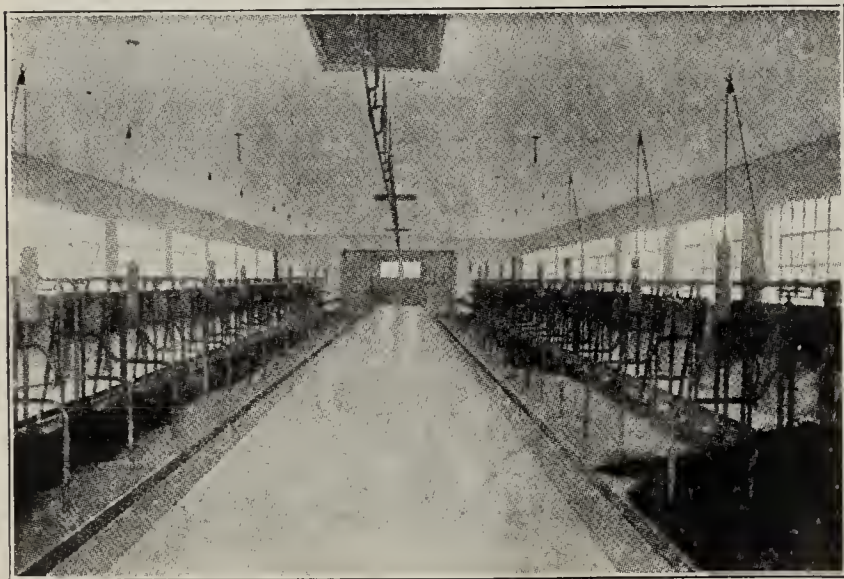
2. Never allow a cow to be excited by fast driving, abuse, loud talking, or unnecessary disturbance; do not expose her to cold or storms more than necessary.

3. Clean the entire body of the cow daily; hair in the region of the udder should be kept short by clipping.

4. Do not allow any strong-flavored food, like garlic, cabbage, or turnips, to be eaten, except immediately after milking. Changes in feed should be made gradually.

5. Provide fresh, pure water in abundance, easy of access and not too cold.

THE STABLES.



THE HIGHEST TYPE OF DAIRY BARN.

6. Dairy cattle should be kept in stable, preferably without cellar or storage loft, and where no other animals are housed.

7. The stable should be light (4 square feet of glass per cow) and dry, with at least 500 cubic feet of air space per animal. It should have air inlets and outlets, so arranged as to give good ventilation without draft of air on cows.

8. The floor should be tight and constructed preferably of cement; walls and ceilings should be tight, clean, free from cobwebs, and whitewashed twice a

year. Have as few dust-catching ledges, projections, and corners as possible.

9. Allow no dust, musty, or dirty litter, or strong-smelling material in the stable. Haul manure to field daily, or store under cover at least 40 feet from stable. Use land plaster daily in gutter and on floor.

MILK HOUSE.

10. Have a light, clean, well-ventilated, and screened milk room, located so as to be free from dust and odors.

11. Milk utensils should be made of metal, and all joints smoothly soldered. Never allow utensils to become rusty or rough inside. Use them only for handling, storing, or delivering milk.

12. To clean dairy utensils, use only pure water. First rinse the utensils in warm water. Then wash inside and out in hot water in which a cleansing material has been dissolved, and rinse again. Sterilize with boiling water or steam. Then keep inverted in pure air and sun, if possible, until wanted for use.

MILKING AND HANDLING MILK.

13. Use no dry, dusty food just previous to milking.

14. The milker should wash his hands immediately before milking, and milk with dry hands. He should wear a clean outer garment, kept in a clean place when not in use. Tobacco should not be used while milking.

15. Wipe udder and surrounding parts with a clean damp cloth immediately before milking.

16. In milking be quiet, quick, clean, and thorough. Commence milking at the same hour every morning and evening, and milk the cows in the same order.

17. If any part of the milk is bloody, stringy, or unnatural in appearance, or if by accident dirt gets into the milk pail, the whole should be rejected.

18. Do not fill cans in stable. Remove the milk of each cow at once from the stable to milk room. Strain immediately through cotton flannel or cotton. Cool to 50° F. as soon as strained. Store at 50° F. or lower.

19. Never mix warm milk with that which has been cooled, and do not allow milk to freeze.

20. A person suffering from any disease, or who has been recently exposed to a contagious disease, must remain away from the cows and the milk.

The inspector should be familiar with these and a copy should be placed in every dairy.

"The Finest Milk in the World"

1. Cattle under veterinary inspection.
2. Employes under medical inspection.
3. Dairies and stations under sanitary inspection.
4. Milk free from dirt and bacteria below 25,000 in a raw state.
5. Clarified to throw out all sediment and inflammatory products.
6. Pasteurized in bottle at 145° F. for 30 minutes.
7. Refrigerated so as to prevent multiplication of bacteria before delivery to consumer."

CHAS. E. NORTH, M. D.

CITY MILK PLANTS.

A city milk plant is a place where milk is received, pasteurized and bottled; where cream is separated, and where butter and ice cream may be made.

The plant should be so situated as to be free from contaminating surroundings. It should be set off by itself in order that light and ventilation can be unimpeded. It should be away from stables and breeding places for flies. The milk plant should be connected with sewers and have a plentiful supply of pure water.

The building should be well constructed, with plenty of light and ventilation. The floors should be of concrete, sloping to a drain. The walls should be smooth and of a light color; an added value to the rooms is a concrete wainscoting about five feet high. The floors and part of the walls can be easily washed. All corners should be well rounded. It is necessary for all openings to the building to be well screened.

Most modern plants have separate rooms for receiving the milk, handling, storing, washing utensils and



INTERIOR MODERN MILK PLANT.

making by-products, such as butter and cheese. There should be also a separate sales room and boiler and fuel room. The rooms should be so arranged as to be easy of access, but special care should be taken that contaminating influences be not conveyed from one room to another.

Of great importance is a separate room for receiving and weighing the milk. Unless special arrangements are made to keep them out, this room will be the center of activity for flies. In order to keep flies out of this room, it is advisable to have the opening on the outside large enough only for the admission of milk cans. A conveyor system may be installed which allows cans to move by gravity into the receiving room. A double flap made of heavy cloth or rubber at the



INTERIOR MODERN MILK PLANT.

opening will keep out dust and flies. The presence of flies in this room is particularly bad as the cans must here be emptied into open containers and milk weighed. collection of samples. The laboratory should be

It is well to have the laboratory in close proximity to the receiving room. This makes it handier for the

LOUISIANA STATE BOARD OF HEALTH.

FOOD DEPARTMENT.

SANITARY INSPECTION OF CITY MILK PLANTS.

Owner or Manager.....Trade Name.....

City.....Street and No.....

Number of Wagons.....	Gallons sold daily	{	Milk.....
			Cream.....

Registration No..... Date of Inspection.....191...

EQUIPMENT	SCORE		METHODS	SCORE	
	Perfect	Allowed		Perfect	Allowed
BUILDING:			BUILDING:	15	
Location. Free from contaminating surroundings	2		Cleanliness:		
Arrangement	6		Floors	3	
Separate receiving room	1		Walls	1	
Separate handling room	2		Ceilings	2	
Separate wash room	1		Doors and Windows	1	
Separate sales room	1		Shafting, pulleys, hangers, pipes	1	
Separate boiler room	1		Freedom from odors	2	
Construction	8		Freedom from flies and other insects	3	
Floor tight, sound, cleanable	1		Drainage	2	
Walls tight, smooth, cleanable	1		APPARATUS	16	
Ceilings smooth, tight, cleanable	1		Cleanliness:		
Provision for light	1		Thoroughly washed and rinsed	6	
Provision for pure air	1		Sterilized in live steam, thirty minutes	5	
Screens	2		(Thoroughly scalded after washing with water over 200° F. or live steam, 3)		
Minimum of shafting, pulleys, hangers, exposed pipes, etc.	1		Bottle caps sterilized	3	
APPARATUS:	20		Protected from dirt	2	
Boiler	2		HANDLING MILK	16	
(Hot-water heater	1		Received below 50° F. (50°-55°, 4; 55°-60°, 3.)	5	
Milk cooler	2		Rapidity of handling in plant	3	
Refrigerator	2		Freedom from undue exposure to air in the plant	2	
Appliances for cleaning utensils and bottles	2		Capping bottles by machine	1	
Racks, etc. for utensils and bottles after cleaning	1		Bottle top and cap protected by covering	2	
Sterilizer for utensils and bottles	2		Storage 45° F. or below (45°-50°, 2; 50°-55°, 1.)	3	
Bottling and capping machine	1		INSPECTION	9	
Wash bowl, soap and towel for attendants	2		Bacteriological work	4	
Protection during delivery	2		Inspection of dairies supplying milk (Once a year, 1; twice a year, 2; three times a year, 3; four times a year, 4.)	5	
Condition of apparatus (make deduction for inaccessible parts, open seams, rusty ware, decayed or battered tables or sink, milk-carrying pipes with rough interiors and lack of frequent hand couplings, and for badly worn and poorly repaired material)	4		MISCELLANEOUS	1	
LABORATORY AND EQUIPMENT:	2		Cleanliness of attendants	2	
WATER SUPPLY	2		(General appearance, hands, etc., 1; clean, washable clothing, 1)		
Clean, fresh	1		Cleanliness of delivery outfit	2	
Convenient and abundant	1				
Total	40		Total	60	

Score for equipment..... plus score for methods..... equals TOTAL SCORE.....

NOTE - If the conditions in any particular are so exceptionally bad as to be inadequately expressed by a score of "0" the inspector can make a deduction from the total score.

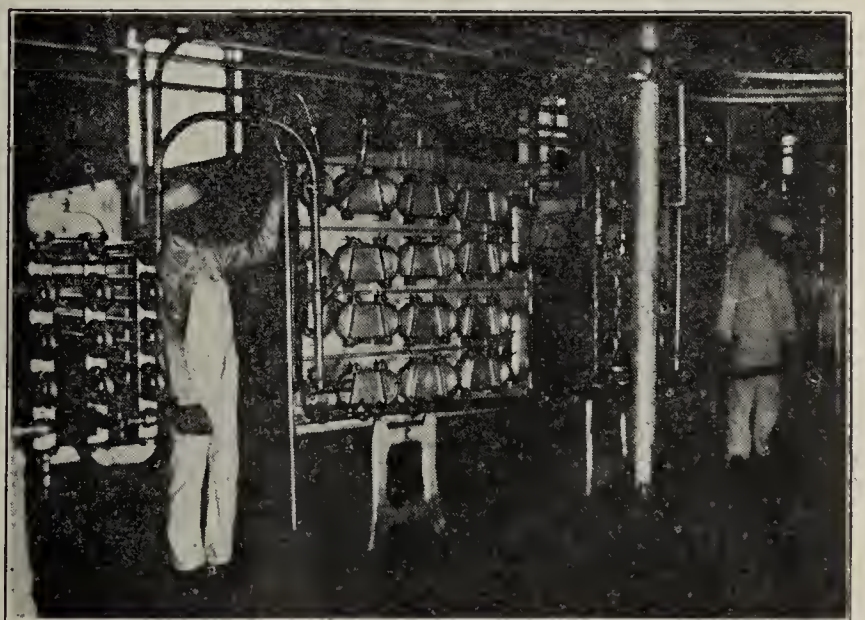
.....Inspector.

equipped for the chemical and the bacteriological examination of milk. The following equipment is necessary for this:

Lactometers.

Babcock milk tester with bottles, etc.

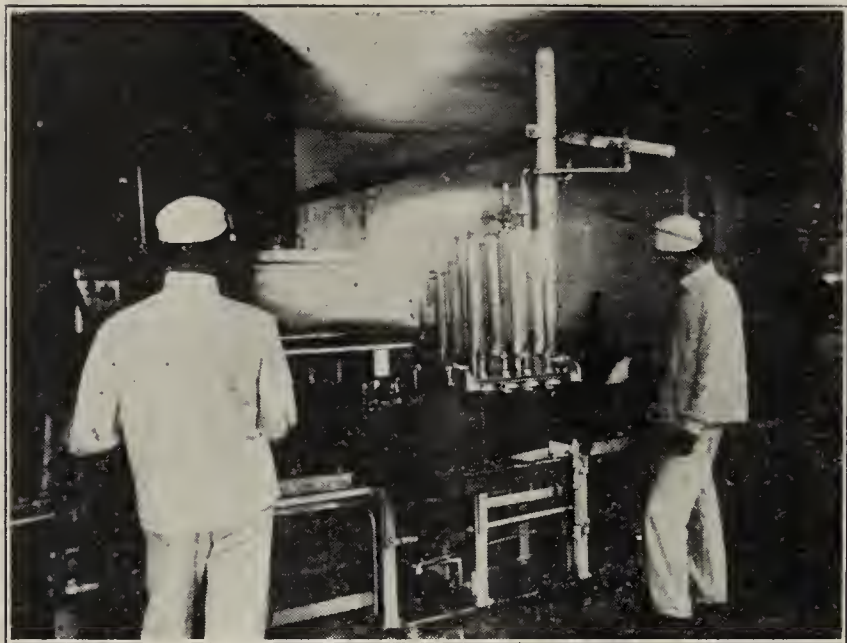
Apparatus for quick determination of moisture in butter.



INTERIOR MODERN MILK PLANT.

Incubators for bacterial analysis.
Autoclav and Arnold sterilizer.
Bacteriological glassware.
Analytical balance.
Chemicals.

The equipment may be much more extensive; but for general work, it is only necessary to make lactometer readings, butter fat tests, and bacterial counts. These will determine the purity of the milk from a chemical and a sanitary standpoint. Factory control



INTERIOR MODERN MILK PLANT.

required the finished products as well as the raw products to be examined.

The room where the milk is handled, pasteurized and bottled is of greatest importance. This room must have plenty of light, smooth walls and ceilings and

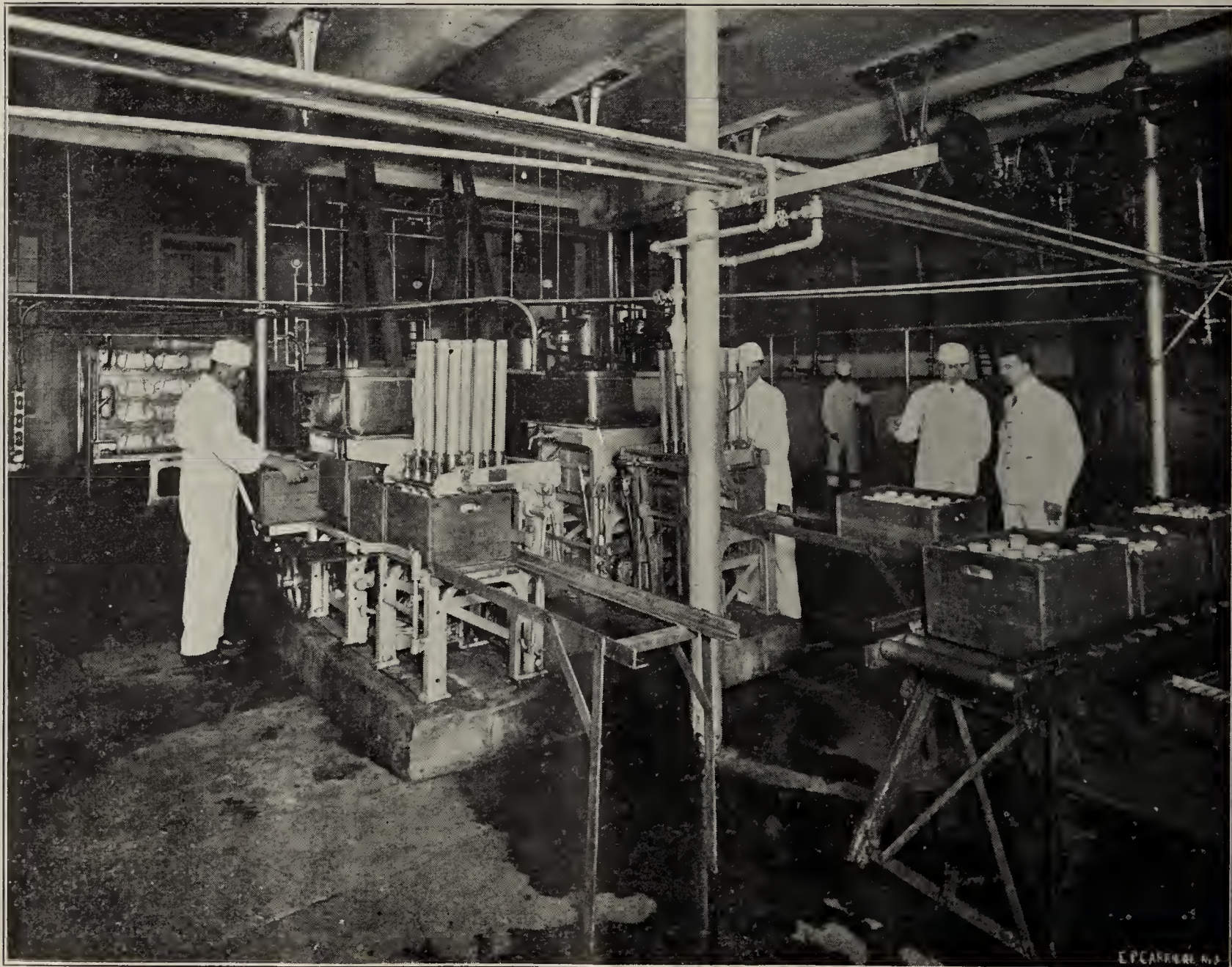
must be free from flies. This room contains a great deal of machinery but should contain a minimum of shafting, pulleys, belting, etc. In a well equipped plant the following will be found:

Mixing tank.
Separator.
Clarifier.
Pasteurizer.
Holder.
Bottler.
Capper.

All these are connected by exposed piping. The ideal system is one in which the milk flows by gravity from one machine to the other, and in which no pump is necessary. All parts of apparatus should be easily accessible. The pipes carrying milk should be straight with hand couplings where joints are necessary. This renders cleaning easy. The pipes should be smooth inside and absolutely clean. Badly worn and rusty machinery shows lack of care.

The inspector should note carefully small tubing in the bottling machine. This tubing is harder to clean and is sometimes neglected. After the milk enters this room its running should be automatic. After leaving the mixing tank it should not be exposed, and it should not be necessary for either bottles or caps to be touched by the hands.

The mixer makes the milk uniform in quality; the clarifier removes slime and sediment from the milk; the pasteurizer kills all disease producing bacteria by



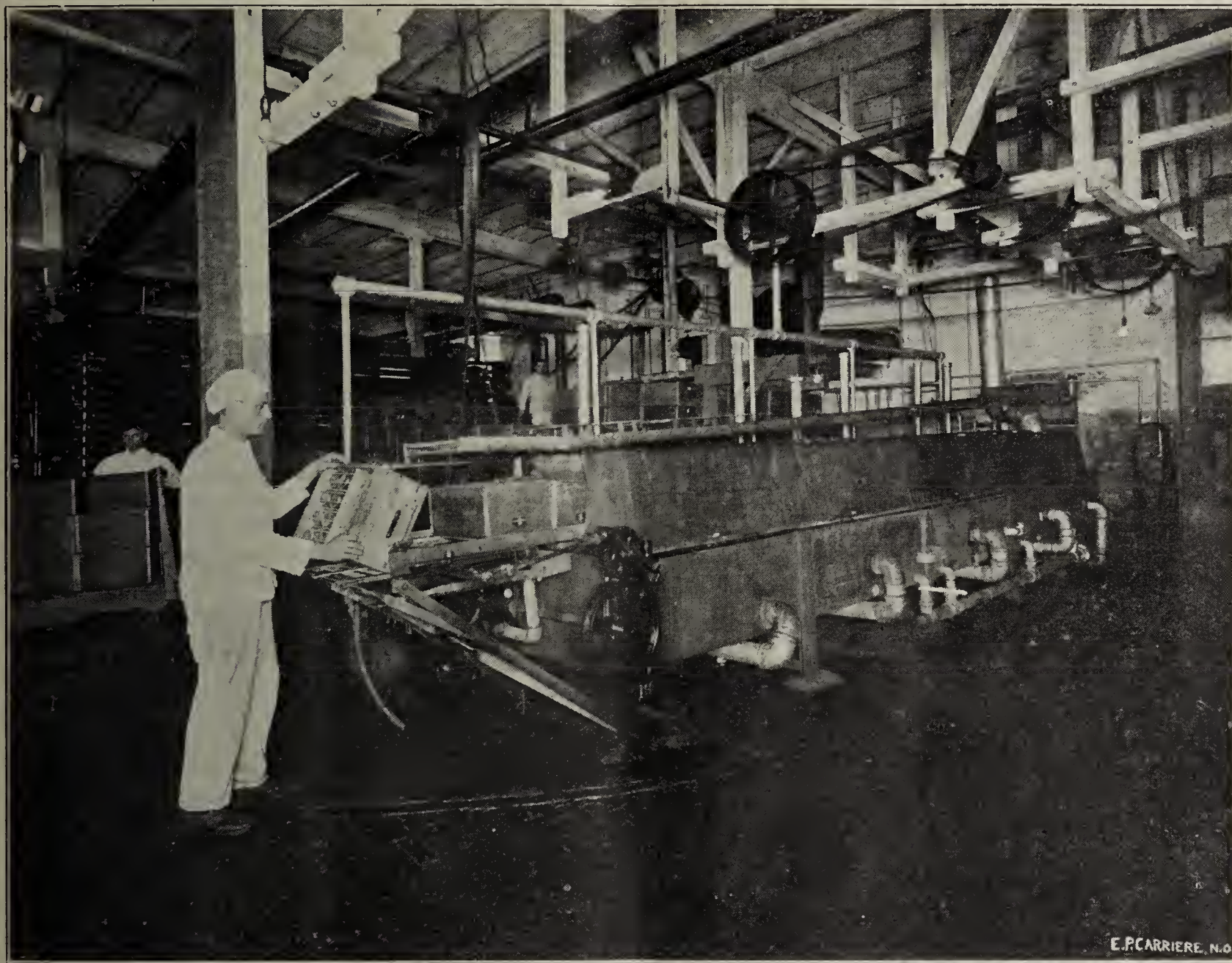
INTERIOR MODERN MILK PLANT.

heating the milk quickly to 145° F. and holding it at that temperature for thirty minutes. Other temperatures and different periods of time are sometimes used; but the above are regarded as most efficient. Sometimes a temperature of 140° F. and a period of fifty minutes are used. The milk is then promptly cooled below 50° F. There are two processes of heating. One is called the holder process and is described above. The other, the flash process, raises the milk to a temperature of 160° F., then instantly cools it below 50° F. The holder process is regarded as the more efficient.

In inspecting a city milk plant, the most important single item is the efficiency of pasteurization. The inspector must note the temperature used and the period of time. On this account some authorities require an

A new method tending to revolutionize the above methods of pasteurization has lately been originated—that is the pasteurization in the bottle. This is the method long used for pasteurization of beer. This is the ideal method for milk if it is properly worked out.

A separate department for the washing of utensils is necessary. A properly equipped milk plant washes most of its utensils by machinery. Hand washing is as a rule inefficient. The washing of bottles is done by the special machine for this purpose. A crate of bottles is soaked, washed, rinsed and sterilized by this process. Bottles after cleaning should be placed mouth down in a room free from dust until ready for use. Milk cans should be thoroughly washed by machinery and washing powder, rinsed in clean hot water or a blast of live steam, and drained until thoroughly dry



INTERIOR MODERN MILK PLANT.

automatic register to indicate the temperature used and the period of time. An excellent idea would be for the city inspection service to place a register in every pasteurizing plant and to keep the key to it.

After pasteurization the milk should be cooled to 50° F. or below. It is then run into the bottling machine. The reservoir should be carefully protected. There is a tendency to leave this exposed. Special attention should be given to the cleanliness of the tubes in this machine. The best time to note this is just before pasteurization begins. From the bottler the material should be capped by machinery, care being taken that the helpers do not contaminate the milk or caps. The milk in bottles should then be stored at 45° F. It should be delivered packed in ice.

inside in a well ventilated place free from odor. The washing and thorough drying of milk cans before returning to the shipper is of extreme importance. A machine has been invented for drying milk cans by means of a blast of hot air.

The engine, boiler and fuel rooms should be entirely distinct from places where the milk is handled.

Delivery wagons and outfits should be neat and clean. The wagons should be well covered.

The employees should be neat, clean and free from disease. Those working in rooms where milk is handled should wear clean white suits of washable material. Adequate toilet facilities and bath rooms should be provided.

(To be continued in next issue.)

Utilizing Waste Raisin Seed

VALUABLE BY-PRODUCTS

NOW and then we hear of people getting rich by discovering a new by-product by putting to new and profitable use a product hitherto entirely wasted. The history of the industries and manufacture is studded with incidents of this character, in fact some of the very largest industries are originally founded upon the utilization of waste. In view of the work the United States Department of Agriculture must be recommended, whenever it draws attention to waste and utilization thereof, as for instance Frank Rabak does in a bulletin from the Bureau of Plant Industry. This bulletin is entitled the "Utilization of Waste Raisin Seeds."

In the raisin seeding industry, which within recent years has grown to such large proportions in the grape producing sections of California, vast quantities of seeds accumulate annually. Some idea may be gained of the vast accumulation of raisin seeds when it is considered that 30,000 to 40,000 tons of raisins are seeded annually. By actual test it has been found that 9.75 or approximately 10 per cent of the fruit consists of seeds. There should therefore be in the neighborhood of 3,000 to 4,000 tons of this material available each year. A brandy may be made by fermenting the sugary matter which adheres to the seeds, also a high proof alcohol by distillation following the fermentation. A similar case is that of grape seeds, of which there is a large accumulation from the residues of wineries and grape juice factories in this country. Foreign wine growers have attempted the utilization of these seeds, but have reaped only limited success. One of the constituents in grape seeds is a fixed oil, a fact known in 1827. Prior to this time the oil had been used in Italy to some extent for illuminating purposes, giving a clear flame without any odor. According to Fontenele, a French authority, 60 pounds of the seeds produced 6 pounds of oil. In the southern region of Europe the oil from grape seeds was used as an edible oil. It burns slowly in common lamps, in a way similar to poppy seed oil, tobacco seed oil and rape seed oil. One of the methods employed for extracting the fixed oil consisted in separating the husks and stems from the seeds by drying and passing them through sieves. The dried seeds were then ground to a meal, placed in a copper kettle and one-third or one-fourth their weight of water added. Heat was applied and the mass was stirred continually to prevent the formation of lumps. When free fixed oil appeared upon pressure between the fingers, the mass was put into canvass bags and placed in an oil press. The mass was again treated in a similar manner, and another quantity of oil produced. In this way ten to twenty per cent of oil was obtained from the seeds. France is reviving this industry in view of the fact that in certain departments are found about 1,036,000 hundredweight of seeds which would amount to 155,000 hundredweights of oil on the basis of a 15 per cent yield, representing a value of 11,655,000 francs. Wine residues consist of 25 to 30 per cent of stems, 50 to 60 per cent of skins, and 15 to 20 per cent of seeds, the total residue comprising about 15 to 25 per cent of the grapes. After extracting the oil the seeds con-

tain 10.6 per cent of moisture, 9.12 per cent of crude protein, 4.2 per cent of crude fat, 45.2 per cent of crude fiber, 3.15 per cent of ash, and 27.6 per cent of nitrogen free extractive matter, of which 11.5 per cent are carbohydrates and 12.4 per cent pentosans. The digestibility of the protein amounts to 70 per cent, fat 75 per cent, nitrogen free extractive matter 85 per cent and crude fiber 50 per cent. It is stated that the ash consists of 14.3 per cent of phosphorus pentoxid and 22.3 per cent of potassium oxid. It is also stated that 3 pounds of the oil will make 5 pounds of soap of good quality. The oil is extracted by hot or cold pressure or by solvents. On account of its high protein content the meal is said to be eaten by cattle with relish.

Waste raisin seeds have furnished material for two final products, namely, raisin seed syrup and alcohol. For the preparation of the syrup the sticky mass of seeds and pulp was washed with cold water to remove the adhering pulp. The solution obtained was distinctly sweet and therefore concentrated on a water bath, yielding 18.5 per cent of an agreeable sweet syrup. These figures may be taken as the average percentage of available syrup, but of course, in some instances much more pulp is left adhering to the seeds than in others. This syrup was reddish brown in color and had consistency equal to that of strained honey. The large quantity of fermentable sugar contained in the syrup makes a commercial production of alcohol appear feasible. In order to ascertain the amount of alcohol capable of being fermented, 150 grams of the syrup were dissolved in about a quart of water, to which a teaspoonful of fresh yeast was added. The mixture was allowed to ferment for about 24 hours at a temperature of 30° C., or until the evolution of carbondioxide ceased. After filtering the solution was acidified with phosphoric acid to neutralize any volatile alkalis which may have been present. The solution was distilled over a direct flame until all of the alcohol was removed from the flask. After making alkaline with potassium-hydroxide solution to neutralize any volatile acids present and distilling, 90 cubic centimeters of alcohol were obtained. The total amount of dilute alcohol contained 35.1 grams of absolute alcohol calculating from the amount of syrup used in the experiment, a total of 23.4 per cent of absolute alcohol can be obtained by fermentation of the syrup. Based upon these results the total amount of alcohol capable of being manufactured from the syrup would approximate 130 to 170 tons.

Commercial Uses.—With its agreeable flavor and sweet, fruity taste, the syrup from raisin seeds possess qualities which should make it useful in the household and also in various commercial industries. For instance in the making of mincemeat, in which large quantities of raisins are ordinarily used, the syrup could be used to a certain extent at perhaps less expense, certainly with less labor, and still the peculiar and agreeable flavor of the raisins could be retained. For table use it would seem to be distinctly desirable, since the flavor and wholesomeness of the raisins are to a great extent retained. A prominent manufacturer

of syrups for soda fountain use has pronounced it to be a most excellent flavor for carbonated drinks and it should find use in this direction. In view of its possible commercial uses, the question of the approximate quantity available and the value of the syrup is important. Since 3,000 to 4,000 tons of seeds are available annually, from the seeded raisin industry, and since approximately 18.5 per cent of syrup is obtainable from this material, it follows that 555 to 740 tons could be manufactured yearly. This is the equivalent of 1,110,000 to 1,480,000 pounds or calculating from the specific gravity of the syrup, 96,522 to 128,696 gallons. The value will of course depend largely upon the channels of trade into which it is directed. A conservative estimate, however, would place it from 30,000 to 50,000 dollars annually, provided a demand for the product is created in which its usefulness is assured, and it is not unreasonable to assume that some of the suggested uses will eventually build up a steady demand for this product.

Raisin Seed Oil.—An ether extraction of the screened dried and ground seeds gave a yield of about 14.5 per cent of a pale golden yellow oil, which possessed a slightly fatty odor with a nutlike taste. This oil contains constituents with drying properties, in other words, it may be used as a paint and varnish oil, after heating it with a drier, however, its drying properties are somewhat lower than such standard oils as linseed, china wood and walnut, but compare well with other drying and semi-drying oils, at least sufficiently to be of value in the paint and varnish industries. The nature of the film produced from boiled raisin seed oil is much the same as that of linseed oil, both being transparent and elastic. In a practical test made by a paint manufacturer, the paint was found to be of a similar body as linseed oil paint, and flowed nearly as well under the brush. It dried somewhat more slowly, but produced a high gloss finish. The paint prepared with the raisin seed oil had a film with a good finish and the oxid was still as brilliant as when applied, which was exactly contrary to the results obtained with the linseed oil paint. After seven months exposure to various conditions the paint still retained the true perfect color of the oxid and the finish was intact. In the opinion of the manufacturers, this particular paint stood up very well, in fact better than linseed oil paint under the same conditions. Another point in favor of raisin seed oil is its resistance to heat permitting it to be heated to 500° F. without taking on color. It appears from these practical experiments that the oil can be substituted for linseed and china-wood oil, hitherto so exclusively used in the manufacture of paint.

As a Soap-making Oil.—A small quantity of soap made from raisin seed oil in a crude way showed the oil to possess some of the qualities of a soap oil. The preliminary test being favorable, the oil was submitted to a prominent soap maker for a practical test. The soap chemist judged the oil fair in color, but claimed it caused a deeper coloration upon saponification than some of the first class soap oils. This feature, of course, can be remedied either by salting out or by bleaching the oil previous to saponification. The soap has a pleasant aromatic odor and was similar to

olive oil soap in color. Olive oil, which is much used in the manufacture of the finer grades of soaps, has a saponification value only slightly higher than raisin seed oil.

Quantity and Value.—The removal of sugary matter for the preparation of the syrup is equal to a reduction of about 20 per cent in the total weight of the seeds. The weight of the seeds remaining would be from 2,400 to 3,200 tons. The average yield of oil being about 14.5 per cent the total quantity of oil capable of being manufactured from this material would be approximately from 348 to 464 tons. This represents from 90,390 to 120,520 gallons available annually. As a paint oil the value should approximate \$35,000 to \$50,000. In the manufacture of soap its value would perhaps be somewhat less.

Tannin.—After the extraction of the fixed oil, the residue may be boiled out repeatedly with water and the aqueous extract evaporated. From 1 kilogram of residue there resulted after evaporation 292 grams, or 2.92 per cent of a semi-solid extract. This extract contained 28.38 per cent tannins.

The Meals as Stock Food.—The greater portion of the by-product is the part that is left after the extraction of the fixed oil and the tannins. This residue constitutes the meal and contains on a 10.6 per cent moisture basis, 12.12 per cent protein, fat 1.2 per cent, ash 2.4 per cent, crude fiber 43.2 per cent and nitrogen-free extract 30.5 per cent. In spite of the high content of fiber, the meal appears very suitable for stock food, in particular on account of its protein content. The annual output of the meal, roughly estimated for its stock feeding value, would be approximately \$16,000 to \$25,000. Its feeding value would, however, necessarily have to be determined by actual feeding experiments.

APPLE CIDER TO BE CONFISCATED.

Boise, Idaho, April 10.—Several hundred gallons of spurious cider has been seized by Commissioner Wallis and placed under seal, and confiscation proceedings are now about to be instituted so that the goods may be legally destroyed. All of it has come from St. Louis, mostly from the Red Cross Company, although because of the similarity in the style and wording of the invoices, the Commissioner believes it is the same outfit that is flooding the state. Seizures have been made in Idaho Falls, Blackfoot, Heyburn, Eagle, Driggs and other points. The last shipment found was in Boise at one of the cigar stores, where two 30-gallon kegs were seized, one flavored to represent "Port" and placed under seal, and confiscation proceedings Dog Cider," undoubtedly because of its strength in alcohol, for it ranges all the way from 6.5 per cent to 10.5 per cent alcohol, more than twice the strength of beer. The product was labeled as follows: "The contents of this package as originally filled, are guaranteed to be made from pure apple cider, reinforced with cane sugar, no distilled spirits, wine, fermented juice of grapes or other small fruits or other alcoholic liquors being added. Flavored with artificial flavor, colored with certified color and contains one-tenth of one per cent benzoate of soda, and is guaranteed to be exempt from internal revenue tax. Bull Dog, Port flavor.

Recent Laws and Rulings

STATE OLEO TAX VALID.

(Federal). The Supreme Court of the United States in an opinion rendered April 13th, held the Montana license-tax of one cent per pound on oleomargarine to be valid. The opinion says in part:

"The argument for the plaintiff in error is that, the tax being pronounced or assumed by the State Courts to be a tax for revenue, it is unjustifiable to put oleomargarine in a class by itself and to discriminate, for instance, between it and butter. But we see no obstacle to doing so in the Constitution of the United States. Apart from interference with commerce among the States, a State may restrict the manufacture of oleomargarine in a way in which it does not hamper that of butter. *Capital City Dairy Co. v. Ohio* 183 U. S., 238, 245, 246. It even may forbid the manufacture altogether. *Powell v. Pennsylvania*, 127 U. S. 678. It may express and carry out its policy as well in a revenue as in a police law. *Quong Wing v. Kirdenwall*, 223 U. S. 59, 62. The case really has been disposed of by previous decisions of this court. *McCray v. United States*, 195 U. S. 27, 62, 63."

Hammond Packing Co. vs. State of Montana.

PASTEURIZATION ORDINANCE VALID.

In the Supreme Court of Illinois:

Gustave E. Koy, Appellant,

vs.

City of Chicago, Apellee.

Mr. Justice Dunn delivered the opinion of the court:

"Gustave E. Koy filed a bill in the circuit court of Cook County on November 28, 1913, in behalf of himself and of all other persons similarly situated, to restrain the city of Chicago and its officers from revoking licenses issued to him as a milk dealer and from interfering with the distribution of milk products by him and by others similarly situated, for failure to comply with certain provisions of sections 1273 and 1274 of the Chicago code of 1911, as they were amended by an ordinance of August 14, 1912. A preliminary injunction was ordered, but on motion of the defendants it was dissolved and a demurrer was sustained to the bill, which was dismissed for want of equity. The complainant has appealed to this court, the validity of an ordinance being involved and the court having certified that the public interest required that the appeal be brought to the Supreme Court.

The bill alleges that the complainant for ten years has conducted a milk business in the city of Chicago, and has furnished to a large number of citizens, and is now delivering, clean, pure, pasteurized milk, and has complied with all ordinances of the city of Chicago relative to purity and cleanliness; that on January 7, 1913, he obtained licenses to conduct his business and run six wagons; that the product handled by him is perishable, and the ordinance requires him to mark his product on the cap on the day on which the milk was pasteurized and dispose of the milk on the day following; that he complies with this requirement, and if he is prevented from disposing of his milk on the day following, as marked on the cap, he loses the entire

product not sold, as the ordinance prohibits him from re-pasteurizing and re-capping, and that his daily loss would amount to \$168; that it is necessary for him to deliver the milk product at an early hour each day; that there are other persons similarly situated in the business and they handle 135,000 gallons of milk each day, and if they are prevented from selling and delivering the same on the day following the pasteurization the product will become a total loss, amounting to \$35,000 a day; that the total value of their business in the city is worth \$500,000, and that there are more than twelve hundred persons engaged in the business, scattered over a territory of 191 square miles.

It is further alleged that on August 14, 1912, the city council of the city of Chicago passed an ordinance regulating the producing, handling and sale of pasteurized milk, which amended sections 1273 and 1274 of the Chicago code of 1911. In accordance with paragraph (h) of article "B" of section 1273 the complainant installed and is operating a pasteurizer, and he has complied with the ordinance in regard to notifying the commissioner of health of such pasteurizer and has obtained a permit to operate the same. The milk used by him is obtained from farms which have been inspected by the commissioner of health, and it is such that ninety-nine per cent of the bacteria and all pathogenic bacteria are killed and the milk treated at the temperature required in paragraphs (j) and (i) of article "B" of the ordinance. In all pasteurization the product is heated to the temperature required by the ordinance and fixed by the commissioner of health, and in accordance with paragraph (k) of article "B" of the ordinance all milk is properly labeled on the cap of every package and on tags attached thereto and the day of the pasteurization is plainly marked thereon. In accordance with paragraph (m) the product is cooled at a temperature of forty-five degrees without being exposed to contamination. The apparatus used can be readily cleaned and sterilized, as required by the ordinance. The pasteurized product complies with the provisions of the ordinance and does not contain more bacteria per cubic centimeter than is within such provisions. The department of health has notified the complainant that it is going to enforce paragraph (i) of Article "B" of the ordinance, which refers to pasteurization, and is as follows:

"All continuous pasteurizers shall be equipped with feeding pipe which is so constructed that the pasteurizer can not be fed in excess of its normal working capacity,—that is, in excess of the working capacity of the machine at which ninety-nine per cent of the bacteria are killed when the required amount of heat is applied. A recording apparatus shall be installed upon all pasteurizers, to record, during operation, the temperature of the pasteurized product as it flows from the heater. The thermometer of this recording apparatus must be accurate and kept submerged in the milk in such a way that it is not exposed to escaping steam or other heat except the heated milk: *Provided*, that if the pasteurizing is done in bottles or in other final containers, the temperature recording apparatus must be attached and adjusted in a manner so as to accurately record the temperature to which the milk

cream, skim milk or buttermilk is raised and the duration of time for which said temperature is maintained. The records made by this recording thermometer must be accurate and made in a chamber which is kept under lock and key in the control of the commissioner of health. The mechanism of the pasteurizer or pasteurizing system shall be such that the three important elements, namely, the temperature, time of exposure and the quantity of milk exposed at one time, can be readily kept under control and observation by the commissioner of health."

It is further alleged that the recording apparatus required is of no benefit to the appellant, for the reason that he now has and uses thermometers and apparatus by which he can determine at what temperature his product is pasteurized and for what length of time the product so pasteurized is kept at that temperature and can comply with the requirements of the ordinance in regard to properly pasteurizing milk without the recording apparatus mentioned in the ordinance, and that the requirement of the ordinance in this respect is unreasonable and unjust and would require the expenditure of between \$45 and \$220 for useless apparatus which would not benefit the city or the health department in enforcing compliance with the ordinance. The bill further alleged that the ordinance is ambiguous and uncertain; that there is no device which will comply with the requirements of the ordinance; that the only devices on the market to meet the requirements are complicated and expensive and cost in the neighborhood of \$65, the cheapest costing from \$45 up; that on all flash pasteurizers an additional requirement of a controller would be necessary, costing \$185 for the cheapest, and that such devices have never been proved to be correct but have been proved to be incorrect. It is further alleged that all the devices offered for sale to meet the requirements of the ordinance are worthless and do not guarantee compliance with the ordinance because of defects in their construction or operation, which are described, and because of the ease with which they can be manipulated so as to show incorrect results; that none of these recording devices furnish reliable information as to compliance with the ordinance unless kept under lock and key, and that it would be impossible for the officers of the health department to visit the various places throughout the area of the city of Chicago where milk is pasteurized; between the time of one pasteurization and the next, and the ordinance could not be enforced without stationing an inspector in each place during the entire operation of pasteurization and in such case there would be no necessity of having the recording devices.

Various technical objections to the bill of complaint as a pleading have been urged by the appellees in their brief which seem to be of considerable force, but since we have arrived at the conclusion that the decree is right upon the merits they will not be further mentioned. The bill is founded upon the proposition that the ordinance is unreasonable, unjust and oppressive and should therefore be held void. When the legislature has authorized a city council to pass ordinances upon any subject, the power thus conferred must be reasonably exercised. Whether its exercise in a particular case is reasonable is a judicial question, and an unreasonable ordinance will be held void by the courts. The regulation of the sale of milk and its products is essential to the preservation of the public health, and authority for its regulation is clearly given to the city

council by paragraphs 50, 53, 66 and 78 of section 1 of article 5 of the cities and villages act. (*City of Chicago v. Bowman Dairy Co.* 234 Ill. 294; *City of Chicago v. Union Ice Cream Co.* 252 id. 311; *Gundling v. City of Chicago*, 176 id. 340). In fact, the appellant does not question the power of the city to require the pasteurization of milk, but only the reasonableness of requiring the use of the recording apparatus mentioned in the portion of the ordinance which has been set out. He alleges that he is furnishing clean, pure and properly pasteurized milk, and that the requirements of the ordinance are no more reasonable than would be a requirement that he should furnish equipment for the city laboratory or pay an inspector for ascertaining whether he was complying with the ordinance.

It is argued that the apparatus is of no benefit to the appellant because he has, and is using, thermometers and apparatus by which he can comply with the requirements of the ordinance in regard to properly pasteurizing milk at the temperature and for the length of time required in the ordinance without the use of the recording apparatus, and that such apparatus has no effect upon the food product itself. The object of the ordinance is not to benefit persons engaged in the milk business or to enable them to comply with the ordinance in regard to pasteurizing milk, but is to make sure that the milk offered for sale within the city shall be of a quality which will not be detrimental to the public health. The city having power to require milk to be pasteurized is not limited to the imposition of a penalty for a violation of this requirement, but may prescribe the conditions under which the pasteurization shall be done in order to prevent an evasion of the ordinance and insure that the product shall be such as the ordinance requires. In *City of Chicago v. Bowman Dairy Co.* supra, an ordinance was held to be a valid exercise of the police power which required every glass bottle or jar in which milk or cream was sold or offered for sale to have its capacity blown into it or otherwise permanently and indelibly indicated on it, and the fact that the effect of the ordinance was to deprive persons of the use of their bottles on hand at the time the ordinance was adopted did not render it invalid. In *City of Chicago v. Schmidinger*, 243 Ill. 167, an ordinance was sustained which fixed the weight of loaves of bread which might be offered for sale, required a label at least an inch square or an inch in diameter to be affixed in a conspicuous place to each loaf sold or offered for sale, having printed thereon the weight of the loaf and the name and address of the maker, baker or manufacturer, and required every maker, baker, manufacturer or seller of bread to keep scales and weights suitable for weighing bread in a conspicuous place, and to weigh in the buyer's presence, when requested, the loaf or loaves of bread sold or offered for sale. In *People v. Freeman*, 242 Ill. 373, a statute was held valid which prohibited the coloring of imitation butter to make it resemble genuine butter, though the coloring matter used might be harmless and its use in genuine butter not prohibited. The ordinances and the statute involved in these cases were of no benefit to the dealers, except as they protected the honest dealers from the unfair competition of dishonest persons engaged in the same business.

It is contended on behalf of the appellant that the ordinance is, in effect, the same as a requirement that the appellant and other milk dealers shall pay for deputy health inspectors of the city for the purpose of

detecting violations of the ordinance, and that this police duty is a purely public burden, which cannot be cast upon the individuals who happen to be engaged in the business concerned. The case of the City of Chicago v. Weber, 246 Ill. 304, is cited in support of that argument. In that case an ordinance required all persons conducting theaters to employ firemen to be detailed by the fire marshal of the city from the regular city fire department and to pay for their services. It was required that a fireman should be present at each performance, in the uniform of the fire department, should report to the fire marshal and be subject to his orders, and should see that the exit doors were unlocked, the fire apparatus in proper condition and all the appliances in working order. It was held that the city had no power to require theater owners to employ and pay a city fireman to be present at each performance, and it was stated that the principle involved was the same as in Gridley v. City of Bloomington, 88 Ill. 554, and City of Chicago v. O'Brien, 111 id. 532, where it was held that the burden of keeping sidewalks free from obstructions by snow could not be laid upon the private owners of adjoining property, and Village of Lemont v. Jenks, 197 Ill. 363, where a charge upon improved lots as compensation for the benefits of increased fire protection, in addition to the regular water rates, was held unauthorized by law. The principle has no application to this case, which relates to the supervision, by law, of a business directly concerning the public health. There is no article of food in more general use than milk; none whose impurity or unwholesomeness may more quickly, more widely and more seriously affect the health of those who use it. The regulation of its sale is an imperative duty which has been universally recognized. This regulation in minute detail is essential, and extends from the health and keeping of the cows which produce the milk, through all the processes of transportation, preservation and delivery to the consumer. Not only may laws and ordinances require that milk offered for sale shall be pure, wholesome and free from the bacilli of any disease, but they may and do, in order to produce this result, prescribe the manner in which such purity, wholesomeness and freedom from disease shall be secured and made to appear. The cows may be required to be registered with a designated public authority; the dairies to be conducted and managed according to prescribed regulations, and, together with the dairy utensils, subjected to inspection; the receptacles in which milk is contained to be of prescribed character and capacity; the labels to be placed according to fixed regulations and to contain certain required information; the milk to be prepared in the manner, at the times and by the means directed and at all times to be subject to inspection. These may be drastic restrictions upon a private business, but experience and the increasing knowledge of the causes of disease and the agencies of its propagation have demonstrated the necessity of such restrictions to the preservation of the public health. The object of all such restrictions is the preservation of the public health, and as a means to that end the protection of the general public against dishonest vendors of milk. They all impose inconveniences and expense upon the dealers in milk, but they are not on that account unreasonable, unjust or oppressive. Legislatures and city councils, in the exercise of the police power, may prohibit all things hurtful to the health and safety of society even though the prohibition invade the right of liberty or property of an individual. (Booth v.

People, 186 Ill. 43.) Such an enactment must be an appropriate measure for the promotion of the public health, safety or welfare. We cannot say that the requirements complained of in the ordinance under review are not adapted to the object sought or are not reasonable. Statutes or ordinances have been held valid which required a vendor of milk to register his herd of cattle with the live stock board; (State v. Broadbelt, 89 Md. 565;) which required vendors of milk to furnish, gratuitously, samples of milk for inspection and analysis on application of sanitary inspectors (State v. Dupaquier, 46 La. Ann. 577); which authorized milk inspectors to enter any place where milk is stored and take specimens of the milk whenever the inspectors had reason to believe it was adulterated (Commonwealth v. Carter, 132 Mass. 12); and which prohibited bringing into the city for sale any milk or cream from cows outside the city unless the packages containing it were marked with a stamp, tag or impression bearing the name of the owner of the cow from which such milk was drawn, giving his place of business, city, street and number or other proper address, and unless the owner of such cow should file in the office of the commissioner of health a certificate of a duly authorized veterinary surgeon stating that such cow had been tested with tuberculin and found free from tuberculosis or other contagious diseases. Adams v. City of Milwaukee, 144 Wis. 371; State v. Nelson, 66 Minn. 166; Nelson v. City of Minneapolis, 112 id. 16.

The appellant insists that the recording device is impracticable; that the record can be made by using water and heating it, without any milk; that the pointer can be manipulated to show a temperature different from the actual temperature; that the dial can be taken out and marked by hand, and that the number of dealers and extent of territory covered by them is so great that it would be physically impossible for the officers of the department of health to visit the places where milk is pasteurized and change the dials between the time of each pasteurization and the next. These are questions of judgment and discretion, the determination of which must be left to the legislative department. If the apparatus should not record the temperature accurately at all times or should not indicate the length of time the temperature was maintained, or if it can be manipulated so as not to show an accurate record, these are matters for the city council to consider. Courts cannot overrule the determination by the city council that a particular method of protecting the public health should be adopted unless it is so clearly and manifestly wrong that there can be no doubt about it. A personal inspection of all milk sold in the city would be manifestly a requirement difficult, if not impossible, to carry out. Even though the recording apparatus may be manipulated by a dishonest dealer so as to show an untrue record, the city council may have thought its use better for the protection of the public than a system by which no record was preserved but the health officers were compelled to rely wholly upon the dealer, and we cannot say that they were clearly and unmistakably wrong. Whether officers of the health department shall be provided in sufficient number to visit the places where pasteurization takes place between each pasteurization and the next is also a question for the council. The decree is affirmed."

Messrs. Geo. L. Reker and Max M. Korshak represented the city.

LIABLE FOR SERVING TAINTED FOOD

(Kansas.) A son living with his father and mother on his father's farm was carrying on the farming operations. He arranged with his parents to board his hands. The plaintiff was employed by him as a laborer for stipulated wages and board. The father purchased, and the mother cooked and served, meat which, when put upon the table, was tainted and unwholesome. The evidence tended to show the bad condition of the meat at the time it was cooking. The plaintiff became sick by partaking of it. Neither the father or the son knew that the meat was tainted until it was on the table. It was held by the Supreme Court of Kansas that the son was liable for negligence in providing unwholesome food, and that the mother and father, having jointly undertaken to provide the board, are equally liable for negligently cooking and serving it. *Malone v. Jones*, 139 Pac. 387.

NOT NECESSARY TO SHOW INTENT

(Missouri.) In this case the defendants were convicted in the St. Louis Court of Criminal Correction for having violated sections 650 and 657 of the Missouri Pure Food Laws of 1909, in that they sold oleomargarine under the pretense that it was butter. The text of the sections referred to is as follows:

"Sec. 650. Imitation butter defined. For the purpose of sections 650 to 652 of this article, every article, substitute or compound, other than that produced from pure milk, or cream from the same, made in the semblance of butter and designed to be used as a substitute for butter made from pure milk, or cream from the same, is hereby declared to be imitation butter."

"Sec. 657. Offering Imitation Butter for Sale. No person, by himself or another, shall sell or offer for sale any substance designed to be used for a substitute for butter under the name of or under the pretense that the same is butter."

As matters of defense, the defendants pleaded, that any sales made in violation of the act were made by their employes and servants entirely without their knowledge; that there had been no intention of violating the law; and that the indictments returned against them failed to contain the names of any purchasers of oleomargarine sold for butter. The Missouri Supreme Court in deciding the case held that the defendants had failed in proving that the sales were made contrary to express orders as matter of defense; that intent is not a necessary element of the offense of wrongfully selling oleomargarine under the name of and under the pretense that the same is butter; and that the name of a purchaser is not essential to the making of the charge of violating the law. *State v. Maurer*, 164 S. W. 551.

TRADE-MARK CASE

(New Jersey.) In an application by the Hill Baking Company, a New Jersey corporation, for a preliminary injunction to restrain the Goodrich Baking Company from using a label and tissue paper wrapper similar to the one used on their bread, it was decided by the New Jersey Court of Chancery that the complainant was not entitled to the relief sought, it appearing from a comparison of the articles that, though similar in some details, they were not, when considered as a whole likely to deceive, and especially as

no evidence had been introduced in the case to show an intent to defraud or that any one had been deceived or defrauded. *Hill Baking Company v. Goodrich Baking Company*, 89 A. 863.

NET WEIGHT LAW VALID

(North Dakota.) As early as chapter 72 Laws 1899, North Dakota has each year enacted legislation upon the subject of pure foods and honest weights and measures. The 1907 Act (Laws 1907, c. 195) provides that every package, bottle, or container should bear the true net weight of the product. Chapter 236, Laws 1911, provides that every article of food or beverage as defined in the statutes of this state shall be sold by weight, measure or numerical count, and labeled in accordance with the provisions of the laws of this state, that all weights shall be net, excluding the wrapper or container, and that every lot of lard, lard compound, or lard substitute, unless sold in bulk, shall be put up in pails or containers holding 1, 3 or 5 pounds net weight, or some multiple of these numbers, and not any fraction thereof. Defendant is a corporation having a packing house in Chicago, Omaha, and other large cities, and maintaining a branch establishment in the city of Fargo, N. D., to which its goods are shipped in carload lots to be distributed therefrom. In October, 1911, the state food commissioner went to this branch establishment in Fargo and asked to purchase three pounds of lard. He was sold a pail containing two pounds and six ounces. The sale and the resultant arrest were made to test the constitutionality of the 1911 law. The defendant claimed that the law was unconstitutional for seven reasons, the first reason being subdivided into six parts: (1) Plaintiff's contention is that the law is unconstitutional because it is arbitrary, unreasonable, and not justified under the police powers of the state. (a) It is contended that the 1911 law was unnecessary because the 1907 law providing for the display of net weights was ample to protect the consumer against fraud. Held, that the Legislature has primarily the choice of laws regulating weights and the court will not interfere with this choice. The burden is upon the person attacking the constitutionality of the law to show beyond a reasonable doubt that the Constitution has been violated, that in the case at bar the defendant has failed in his proof; there being many reasons for the 1911 enactment. (b) It is contended that the law is unreasonable because it interferes with a custom of the lard industry extending over a period of years. Held, that this is no objection to the law. The fact that an abuse has existed for a period of years does not foreclose the state from an attempt to regulate the same. (c) It is contended that the law is unreasonable because it imposes an additional expense upon the packers. Held, upon an examination of the evidence, that this contention is not well founded. The defendant is already supplying a private firm with net weight pails that would comply with the law of North Dakota. No reason is shown why those pails could not be lithographed with the Armour brand and used in North Dakota. (d) It is further urged that the law is unnecessary and unreasonable because in any event the customers are not prejudiced; that they are paying merely the price of bulk lard, plus the extra expense of the tin pails. HELD, upon an examination of the evidence, that the consumer pays more than the mere cost of

the container. This cost includes expensive advertising upon the pail itself, and a probable profit to the middlemen upon the cost of the pail, as well as of the lard. (e) It is urged that the law is unreasonable as interfering with the regular custom of all trades; it being contended that butchers and grocers include the weight of the paper bag with the goods sold. Held that, even if true, it furnishes no reason why laws should not be enacted to regulate this abuse. (f) It is contended that the enforcement of this law will drive the packers to use bulk lard only, to the detriment of the commodity. HELD that, from the evidence, the packers never furnished over 40 per cent of the lard to the trade in this state, and this defendant furnishes but between 5 per cent and 10 per cent of the lard used, and, even should it withdraw from the state, it would not materially affect the lard industry. The authorities upon the subject of the control of weights and measures by compelling even weights in containers uphold these conclusions. State v. Armour & Company; 145 N. W. 1033.

STATE CHEMIST OF ARKANSAS.

Arthur R. Stover, state chemist of Arkansas, was born in Iowa. 1869. He received his M. A. degree in 1890 from Baker University. After receiving his master degree, he devoted two years to the study of chemistry and pharmacy at the University of Kansas. Graduated later in Medicine at Washington University, St.



ARTHUR R. STOVER.

Louis, and took graduate instruction at the University of Chicago, Harvard and elsewhere. For ten years Arthur R. Stover has been connected with the medical department of the University of Arkansas, while during the past seven years he has been the head of the department of chemistry.

COMPARATIVE FOOD PRICES.

SOME of us who are complaining about the high cost of food products may find a few grains of comfort in the table which follows showing prices at which a list of staples were sold in 1875, and the prices of the same articles at the present time. The table was prepared by Thomas Martindale and contributed to the Public Ledger of Philadelphia, Penn.:

	1875.	1913.
Granulated sugar, lb.....	\$.11½	\$.05
Brown sugar, lb.....	.09	.04
Cut sugar, lb.....	.13	.06½
"A" sugar, lb.....	.10	.04½
Pulverized sugar, lb.....	.12	.06
Coffee, roast Mocha, lb.....	.50	.36
Coffee, roast Java, lb.....	.40	.36
Coffee, roast Rio, lb.....	.30	.22
Sandsoap, cake.....	.10	.07
Laundry soap (Babbitt) cake.....	.08	.05
Laundry soap (Oleine).....	.10	.07
Rice, lb.....	.12	.09
Honey, comb.....	.35	.25
Cornstarch, lb.....	.11	.10
Walnuts, lb.....	.35	.25
Concentrated lye, doz. cans.....	1.60	1.20
Flour, sack, 24½ lbs.....	1.00	.85
Macaroni, lb.....	.20	.12
Glace, citron, lb.....	.45	.30
Exton crackers, lb.....	.12	.10
Prunes, fancy.....	.36	.18
Corn, can.....	.20	.12
Peas, can.....	.20	.15
English cheese, lb.....	.20	.22
Ham, whole.....	.15	.21
Pineapple cheese, each.....	1.75	1.25
Peaches, doz. cans.....	3.50	3.50
Tomatoes, doz. cans.....	1.50	1.00
Cove oysters, doz. cans.....	2.00	1.50
Salmon, doz. cans.....	3.75	2.50

Since 1875 there has been a steady reduction in prices of a great variety of staple goods as indicated in the table published. Within the past ten years, however, there has been a steady advance in most products of the farm, not enumerated in the table of comparative prices. Meat of all kinds has had a great advance. Milk, butter, eggs and vegetables have also advanced in price. Canned goods have sold at comparatively low prices during the past ten years, due largely to the improvement in machinery and the general cost of packing and distributing.

Our manufacturers of food products, while they are compelled in many cases to pay higher prices for their raw products, are able to overcome this through their ability to save cost in their manufacturing process. Our farm products are high and are likely to reach a still higher level.

At the recent pure food show held in Brooklyn, N. Y., the attendance reached over 16,000 on one day.

Unless a well is bored or driven to second water through a bed of clay or hardpan it furnishes surface water, and the composition is the same in a shallow bored or driven well as in a dug well.

Washington, D. C., Correspondence

(From our Staff Correspondent.)

Washington, D. C., April 30.

THE Ninth Annual Conference on Weights and Measures of the United States will be held in Washington at the Bureau of Standards on May 26, 27, 28 and 29, 1914.

The object of these conferences is to bring together the officials enforcing the weights and measure laws in the states and cities throughout the country, for the purpose of securing uniformity in the laws of the various states and also uniformity in the methods used in enforcing the laws, by discussion of administrative and technical questions arising in connection with the work, with a view to advancing the cause of honest weights and measures.

Invitations to the conference were issued some time ago and the replies so far received and the general interest taken indicate that the present conference will be the most largely attended of any of those which have been held since the inaugural conference held in 1905. It is expected that it will even eclipse that of last year when thirty state delegates, forty-nine city and county officials and more than fifty visitors, including representatives of commercial organizations, manufacturers, etc., attended.

The program of this conference as tentatively framed by the executive committee at a meeting held in Washington a short time ago bids fair to be a very interesting and instructive one. Tolerances and specifications on commercial weighing and measuring apparatus will be exhaustively discussed with a view to obtaining an authoritative and thorough set which may be adopted by all officials throughout the country, thus making it possible to eliminate the production of false weighing and measuring apparatus or that facilitating the perpetration of fraud. Uniformity in this regard will also protect and facilitate the business of all manufacturers of weights and measures engaged in interstate commerce since when this object is attained it will be possible to make a general type of apparatus which will wholly meet the requirements of each of the states adopting the specifications and tolerances of the conference.

Another feature of the conference will be the exhibition of testing railroad track scales, utilizing the test car recently built for the Bureau of Standards in accordance with an appropriation of Congress for the inauguration of the work of Federal inspection of track scales of large capacity. This car is unique in design and construction and is conceded to be the finest ever constructed in the country for the performance of this class of inspection work. The car carries 100,000 pounds of standard test weights and includes single weights in sizes ranging from 10,000 pounds down to 1/10,000 pounds and is so arranged that it is possible to test a scale of 150,000 pounds to its full capacity.

Papers will be presnted on various technical features necessarily entering into the work of weights and measures inspectors, including questions of errors introduced by lack of level of a scale, description and methods of test of cream and butter-fat test scales, etc.

Invitations have been extended to all manufacturers of weights and measures and weighing and measuring devices to exhibit their products and this exhibition is expected to be one of the most interesting and instructive features. Among the pieces exhibited will be standard testing apparatus, such as scales capable of detecting errors of one four-millionth of a pound or less; gold-plated bronze weights adjusted with extraordinary precision; testing equipment of all kinds for use in the office and in the field, etc. The exhibition of commercial apparatus will also be an extensive one and will include all the standard forms of scales, weights and measures, including those recently developed as a result of the country-wide agitation for more accurate commercial equipment.

There is no doubt but what a great deal of good will result from the campaign among the dairies recently started in the state of Illinois. An expert was sent from the Bureau of Chemistry upon request of Commissioner W. Scott Matthews to co-operate with the Illinois commissioner in his fight for clean milk.

Equipped with a bacteriological field equipment the government expert accompanied the State Commissioner and the city boards of health into the dairies and examined the sources of supply, took samples and made reports to the officials of each city of the true conditions and made suggestions for improvement wherever he deemed it necessary.

Upon his return to the National Capitol, the government expert reported good and bad conditions. On the one hand he found some model dairies which were producing pure milk, while on the other he found dairies so filthy and the milk so impure, that their continuance without improvement would be a menace to the public health.

It is a well known fact that there is nothing that causes so much sickness and spreads disease quicker than bad milk. This is especially true among infants who are obliged, by nature, to live upon it. People have come to recognize that dairy inspection is one of the most important branches of the pure food work, and a great deal of attention is being given to this branch of the work all over the country.

During the coming season the Bureau of Chemistry, Department of Agriculture, will continue its investigations into the packing of sardines on the eastern coast, particularly in the state of Maine. A well equipped bacteriological and chemical laboratory will be placed on the ground, where examinations of fish used for packing can be made at all stages of the process.

This investigation was started last year, with the object of placing the canned sardine on a quality instead of a quantity basis.

Dr. C. O. Yates, State Food Commissioner of Texas, successor to Mr. J. S. Abbott, who has recently accepted a place in the U. S. Bureau of Chemistry, at Washington, has been commissioned by the Department of Agriculture a collaborating official for the government in his state.

Vigorous War Being Waged Against the Fly

ILLINOIS FOOD COMMISSIONERS FORCES IN THE
FIELD TO PROMOTE THE CRY OF "SWAT THE FLY"

THE flies are in bad right now, war having been declared against them from many sources. Illinois, through official resources, has joined the crusade and will not only swat the fly itself but will lend its great aid and assistance to all the people.

W. Scott Matthews, State Food Commissioner, has prepared a pamphlet in which he recounts the history of the fly and reproduces the statements of experts to the effect that it is more deadly to human life than the tiger or rattle-snake.

One hundred thousand of these pamphlets will be distributed through the women's clubs and the schools.

Mr. Matthews has received the endorsement of F. G. Blair, State Superintendent of Public Instruction, and county superintendents have promised their co-operation.

A feature of the book is a working model for a fly-trap. Pupils in manual training departments will build them. These traps have been declared by the United States authorities to be the most destructive weapons yet devised for the war upon the house fly.

A fly catechism is given. It is the same that is used by most of the states which have conducted fly campaigns and the school children are to be drilled in it. It has eighteen questions and answers as follows:

1. Where is the fly born? Chiefly in manure piles, but also in other filthy places.

2. How many days does it take for an egg to change into a fly? In from ten to fifteen days a full grown fly is formed.

3. What changes take place during this time? The egg hatches into a maggot, this changes into a pupa, the pupa changes into a full grown fly.

4. What does the fly feed upon? It eats anything that it can get at from the filthiest animal refuse as manure and sputum, to the choicest foods which we eat.

5. Is there anything too filthy for the fly to eat? No.

6. Does the fly always stay with the filthy food? No, it may visit your own food next.

7. Where is its favorite place of feeding? The manure heap, the vault and the spittoon.

8. Where does the fly go after leaving the manure pile, the privy, vault and the spittoon? Into the kitchen, dining room and the bedroom.

9. What does he do in the kitchen, dining room and bedroom? He wipes his feet on the food, bathes in the milk and annoys the sleeper.

10. Does the fly visit those sick with typhoid fever, consumption and summer complaint? He certainly does, and may call on you next.

11. Is the fly dangerous? Yes, he spreads disease.

12. How does he spread disease? He spreads disease by scattering disease germs which he has collected on his body and legs. Fly specks also contain disease germs.

13. Did the fly ever kill any one? He killed more American soldiers in the Spanish-American war than did the bullets of the Spaniards and he is the direct cause of much of the typhoid fever, diarrhea and consumption, each year.

14. Where are the greatest number of cases of typhoid fever and summer complaint? Where there are the most flies.

15. Where are the most flies? Where there is the most filth.

16. Is the presence of flies therefore an indication of nearby filth? It most certainly is, and shows lack of cleanliness on the part of the people.

17. Why should we "Swat the Fly?" Because he is the cause of much sickness and death.

18. How may we successfully combat the fly? By prompt removal of all manure, garbage and rotten substances making the privy-vault fly-proof and keeping the yard clean, by screening the house, by use of the swatter, the trap, and fly paper.

Attention is called to the fact, that a fly swatter in April is worth a million in August. A section of the bulletin sets forth advice to parents of how to fight the fly.

1. Have the house thoroughly screened.

2. Avoid filth or collection of garbage or slops anywhere about the premises. Garbage and slops



STABLE FLY (Magnified).

should be kept in tightly-covered containers.

3. The privy or outhouse should be screened, and should be of so tight a construction as to keep out the flies, and a frequent application of chloride of lime should be made.

4. Manure should not be scattered about but should be kept in tightly covered wooden bins or boxes until such time as it can be removed, as it should be frequently.

5. If the manure cannot be put in tight covered bins, it should be sprinkled with a solution composed of one part kerosene and four parts of water, or the kerosene straight may be poured over the manure first, and the water afterwards.

6. Use a fly trap. The one described herein is recommended. See that it is cleaned and emptied frequently.

The working plan for the construction of a cheap, but highly efficient trap is shown. This trap is recommended by United States Department of Agriculture.

Fig. 1 is the base-board on which the trap stands. The two cleats (L) prevent the base from warping when set in moist places.

Fig. 2 is the bait pan which must be water tight when liquid bait is used.

Fig. 3 sets over the bait pan. It is covered with ordinary wire screen with holes (M) across the ridge. The holes may be made by spreading the wire apart, with a nail, until holes 5/16-inch in diameter result.

Fig. 4, the cage is also covered with wire screen on the two sides and top. The ends are wood. Hooks and eyes are used to fasten the parts together.

The trap can be constructed from any available material. Excellent ones have been made from the discarded packing boxes.

The bait may consist of meat, fish, sour bran and water, bread and milk, etc. Fermenting fruit juices, pop, etc., are good baits.

The flies enter the trap by crawling through the one-inch opening between the base board (Fig. 1) and the frame (E) Fig. 3 which is held up from the base board by the one-inch blocks on each corner.

After having eaten of the bait the flies instinctively fly upward and attempt to get out through the openings (M) but this leads them into the cage proper where they are held.

Set up the trap, properly baited, where flies congregate. When trap becomes crowded, kill flies with scalding water and set up again. The limit for one trap is about 20,000 flies. Frequently one trap will catch 7,000 to 14,000 flies the first hour.

W. Scott Matthews, Food Commissioner of Illinois, believes that ignorance as well as carelessness is the cause of many violations of the Sanitary Food Law of the State.

In an endeavor to set things right, Mr. Matthews is issuing a series of bulletins which discuss the causes and dangers of insanitary conditions. These bulletins

will not only treat on insanitary conditions, but will show how foodstuffs should be handled.

W. H. Harrison has been placed in charge of the issuing and circulation of these bulletins.

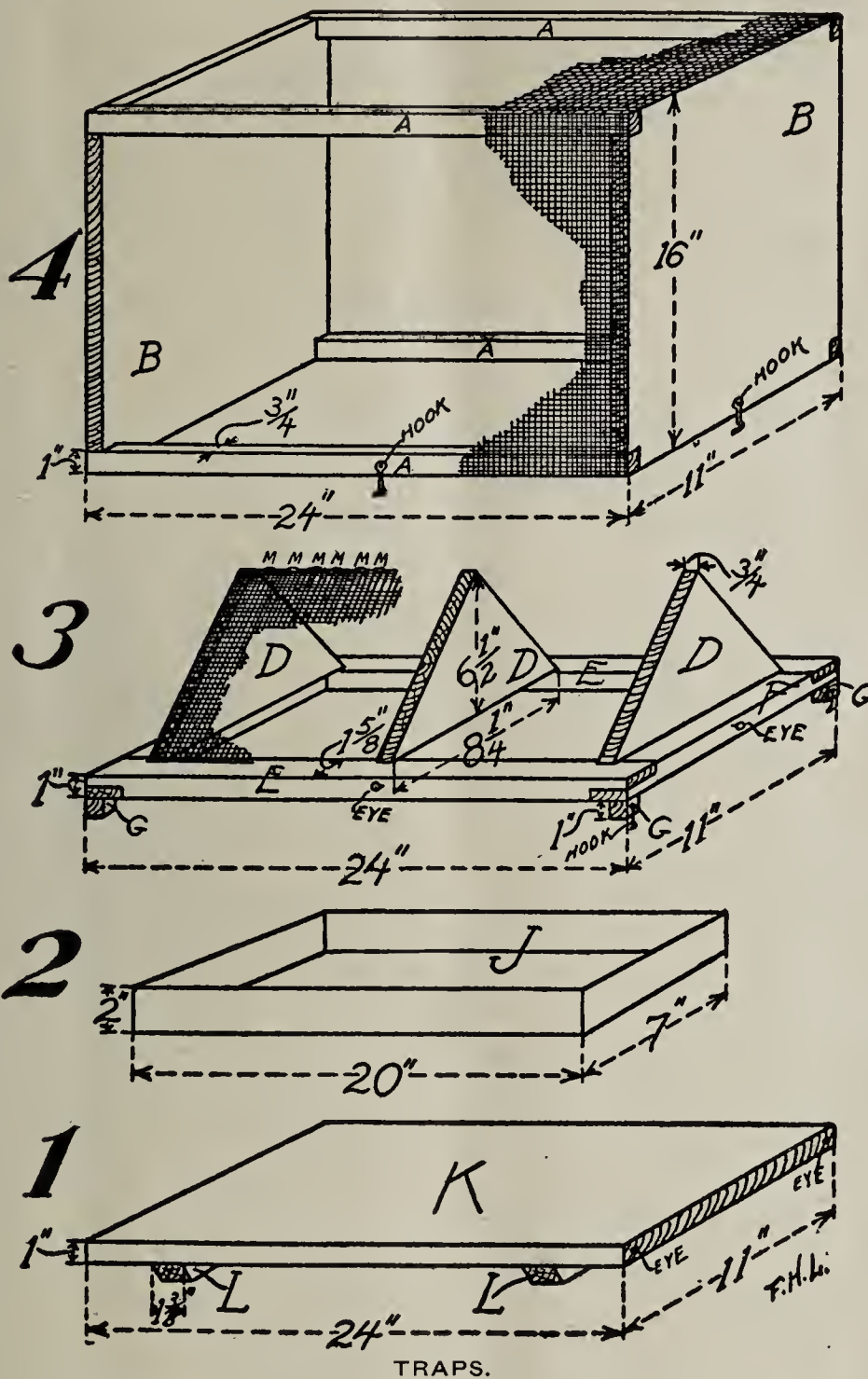
MR. AND MRS. H. FLY.

Consider the house fly and his mate. They toil not, neither do they spin, but when it comes to bringing forth posterity, they have got Teddy Roosevelt's hobby beat a mile. About this time Mr. and Mrs. H. Fly leave their winter quarters and hie themselves to the nearest manure pile, where Mrs. H. Fly makes her nest and lays 120 eggs at one setting. As a layer Mrs. Fly has got the White Leghorn beat to a frazzle. In twelve hours these eggs hatch into maggots and unless picked up by the old hen and converted into eggs, they crawl down in the manure and eat this luscious substance for a week. Then after laying dormant for another week, they come out full-fledged flies, dressed out in an Easter suit minus the hat and split skirt and proceed to give the race suicide theory another blow in the solar plexus.

Every fly killed in May means 1,000,000 less flies in September. Now is the time to swat the fly and swat him hard.

The fly is born in a manure pile. He lunches on it when young, and, like most youngsters, he fails to rise above his environment. There is no place too filthy to repel a fly. The fly has six legs with 162 hairs on each leg and a small sponge on the bottom of each foot.

JAMES W. HELME,
State Dairy & Food Commissioner.



Indiana Correspondence

(From our Staff Correspondent.)

INDIANAPOLIS, April 27.—This city and the state at large has just been stirred by an expose of alleged meat conditions, which may have been existing here for years with little knowledge concerning them. Charles Gardner, a local butcher, has just been fined \$500—the maximum—and given 180 days in jail—the maximum—because it was proven to the satisfaction of City Judge James E. Deery that he had slaughtered sick mutton and sold it to the Indianapolis public.

The disclosures immediately brought forth a demand for a municipal abattoir here and Harry E. Barnard, state food and drug commissioner, in a long and exceedingly pertinent letter to Joseph E. Bell, mayor of the city, suggested that the city's meat inspection force be immediately increased by fifteen or twenty inspectors, placed as nearly as possible on a par with the Federal inspection and that attention be given to the problem of a municipal abattoir. Whether this letter will bear fruit has not yet become known, but Barnard declares that the conditions in this city would seem to warrant unusual remedial measures.

Barnard's letter to Bell was as follows:

"May I take this opportunity to express my appreciation of the effective work now being done by the City Board of Health in the prosecution of dealers and butchers who so little realize their responsibility to the consumer as to sell the meat from diseased animals. I note that City Judge Deery has just imposed the maximum fine, including imprisonment, on Charles Gardner for violation of the law prohibiting the sale of diseased or unwholesome provisions.

"In this connection, it is interesting to note that in December, 1910, this same dealer was fined in the Police Court for selling weinerwurst sausage adulterated with starch.

"For many years it has been a notorious fact that Indianapolis is a large consumer of the meat of diseased animals. An inspector employed by the Federal Government recently told me that Indianapolis had the unenviable reputation of consuming more diseased meat than any other city in the country. Although the Food Department of the State Board of Health is not prepared to handle meat inspection work since we are unable to employ competent veterinarians, some two years ago we placed one of our inspectors at the Stock Yards for the purpose of determining the disposal of dead or dying animals. The report made by this inspector and transmitted to the City Board of Health, showed atrocious conditions and a wilful purpose, not only to violate the law prohibiting the sale of diseased meat, but to transgress every sense of decency and moral responsibility.

"I shall be glad, if you desire it, to have the inspector who did the work at that time advise you as to the facts then determined.

"The State Board of Health has always recognized the necessity for a State or Municipal meat control to supplement Federal control, and as a result of our study of the necessity of such control and the methods by which it may be accomplished, I shall shortly propose a plan of operation to the Mayors of all Indiana cities which I believe may be worked out economically and effectively and which will insure the users of the products of slaughter houses not inspected by the Federal Government as wholesome a meat supply as that now available only at the large packing establishments.

"A recent communication from Dr. A. D. Melvin, Chief of the Bureau of Animal Industry, U. S. Department of Agriculture, reads in part as follows:

"It is a fact that when animals are suspected of being diseased they are often sent to market, preferably where Federal inspection is not maintained.

"It is estimated that 2 per cent of all carcasses are affected with some disease or condition requiring condemnation either in whole or in part, and as the carcasses slaughtered under

Federal inspection show considerably less than 2 per cent condemned, those slaughtered without inspection evidently are diseased to a greater extent."

"I quote also from a bulletin issued by the Bureau of Animal Industry, suggesting a plan for municipal slaughter houses which, in the interest of the public health and good business, may very properly be maintained in place of the inadequate, unsanitary, uninspected local slaughter houses which now furnish between 40 and 50 per cent of the meat supply of the State:

"It is impossible to secure an effective system of local meat inspection without either a great increase in the number of competent meat inspectors employed or a concentration of the business of slaughtering. It is largely on account of the multiplicity of slaughter houses that thorough systems of meat inspection have not been more generally established. In the small houses, very frequently the slaughtering is done at night or very early in the morning, and it would necessitate the employment of a small army of meat inspectors to provide a sufficient number so that one should be present at each place.

"The plan of concentration of slaughtering is supported by the experience of all the older civilized countries. It is recommended not only because it facilitates the inspection of meat but because of the numerous other advantages. Since the local slaughter houses are especially prolific sources for the spread of disease, the segregation of such places would materially reduce the number of centers of infection. It would eliminate all of the small, poorly built, badly managed slaughter houses which are in many instances nuisances in their respective neighborhoods. It would give the small butchers the advantage enjoyed by wholesalers and the large packers, as they could use the machinery installed and the increased facilities supplied in the way of an abundance of hot and cold water for cleansing purposes, all of which are greatly superior in a large plant. The refrigeration also is much better in such a plant and would result in increased wholesomeness of meat to the consumers. The character of the local meat supply would gain in reputation, and local meats could enter into competition with those supplied by the large packers. Unless there is a competition of this kind, the tendency of the trade at present is that the large packers would control the supply.

"Instead of increasing the cost, the tendency of centralization is to reduce it. A large establishment conducted by co-operation among the butchers would naturally entail less expense than a number of small ones. Moreover, such a system is a great safeguard to the consumer of meats, while it subjects the butchers to no hardships whatever, but makes it more convenient and cheaper for them to conduct their trade. In Europe such union or central abattoirs are owned by the municipalities, and undoubtedly this is the best system, since all of the butchers are assured of equal rights and privileges. Germany has more than 600 slaughter houses belonging to municipalities.

"If cities and towns of the United States are not prepared to adopt the plan of municipal abattoirs they can at least require a segregation of slaughtering and require animals to receive a careful post mortem inspection at the time of slaughter."

"The Indianapolis News of Saturday, March 14, contained a special article showing how the inspection work is carried on in Indianapolis by the Federal Government. This article pointed out that since the destruction of the old theory that a person, a company or a corporation handling food supplies has a right 'to run its own business as it sees fit,' 900,000 carcasses and 4,500,000 parts of carcasses have been destroyed by the Government inspectors, because of the fact that all of these millions of pounds of meat was the product of diseased animals.

"Since stock buyers know that the animals they send to the Government inspected abattoirs are subject to the most thorough scrutiny of trained men, they are very careful not to buy diseased animals. What becomes of the other stock, the suspicious or rejected animals? They seek a market at the uninspected slaughter houses at Indianapolis or elsewhere in the State.

Saccharin vs. Sugar

LAST YEAR approximately 100,000 Americans died from Bright's and other diseases of the kidneys. Standing alone these figures are impressive. Considering them in connection with two important facts, they become startling.

These facts are:

- (1) That fully 60%, or 60,000 of these deaths could have been prevented or postponed for years if the presence of the disease had been discovered in its early stages.
- (2) That the death rate from these diseases is increasing at an abnormal rate—72% in 20 years and 23% in the last 10 years. (In the registration area.) —From *The Human Factor*, March, 1914.

It has been estimated that about 20 per cent of our people are either suffering from diabetes or have a tendency to be so afflicted. **Sugar is a known poison to such people** and every physician will tell you so.

Saccharin has no deleterious effects on either the sick or the well, and its discovery represents one of the greatest achievements in the world of science. Why, therefore, unnecessarily subject this great percentage of our people to the possible dangers incident to the use of sugar, when it can be avoided by the use of Saccharin.

No one with any feeling of independence or sense of manhood *should hesitate to use Saccharin through fear of criticisms from those who have selfish interests.*

We strongly recommend that when Saccharin is used in foods or beverages, the fact be so stated on the label.

We will defend the users of OUR SACCHARIN against any charge that it is deleterious to health.

Monsanto Chemical Works

Manufacturers of *Saccharin*

Saint Louis and New York

"I would be doing an injustice to our excellent local meat inspection service, the service under which Dr. McConnell has just brought about the conviction of Charles Gardner, if I did not give it full credit for its efficient work. Unfortunately, the few inspectors the City Board of Health maintains at uninspected slaughter houses, cannot hope to cope with a condition which can only be described as atrocious. I believe you will be justified in going quite as far in the employment of meat inspectors as does the Federal Government and, if it seems necessary, to employ five, ten or twenty meat inspectors to render the same service to Indianapolis that the Bureau of Animal Industry renders the consumers of products designed for interstate consumption.

"As to whether this inspection work may be best carried on by an adequate corps of trained inspectors stationed in every local slaughter house or by the establishment of a municipal abattoir at which the meat supply of our city may be prepared, is a question to be determined only after thorough investigation.

"If this department can be of any service to you in reaching a solution of the problem of an inspected meat supply, please command us."

The state board of health has just completed a series of tests on drinking water in interurban cars and steam trains in the state, and the investigation of the water on interurban trains is to continue until practically the entire system of state lines is covered. This is the first time state authorities have begun an investigation of interurban car water service. Chemists in the laboratories of the state board are making analysis of water taken from "coolers" on cars entering Indianapolis. Anderson, South Bend, Fort Wayne, Evansville, Marion and other cities. Besides testing the water the state authorities are finding out how often the coolers are cleaned, the quality of ice used and whether methods used in handling the ice and water are sanitary. The tests, it is understood, are being made at the request of Federal authorities.

The state board of health has just notified all inspectors of weights and measures in the state that they must prepare for the coming berry season.

"Your attention is called to the opinion given by Attorney General Honan to the effect that when potatoes are sold by the peck the peck must weigh fifteen pounds. Repeated tests have shown the impracticability of putting fifteen pounds of potatoes in a peck measure. It can be done but only by heaping the measure much higher than the usual practice. Please, therefore, advise all dealers that they run the risk of violating the law unless they adopt the practice of selling by weight all commodities for which a standard weight is named by law. Give publicity to the fact that the average peck of potatoes is from one to three-pounds short weight and advise consumers always to see that they get their full fifteen pounds.

"Watch out for short measure berry boxes. Require all boxes to be full dry pints or quarts. Order all short measure shipments returned to the shipper. If the shipper is an Indiana dealer advise this office.

"Investigate the labeling of packages in dry goods stores, drug stores, hardware stores, etc., wherever goods are sold by the dozen, gross or yard. Remember it is illegal to sell adhesive tape by short measure as it is to sell coal by short weight. Note whether packages of soap, bottles of bluing, boxes of washing powder and other general groceries are properly labeled and full weight or measure.

"A number of inspectors are reporting successful convictions. For this work they are to be congratulated. Their success strengthens our work, but remember that the courts are a last resort and that constructive work will count in the long run more than punitive efforts at law enforcement.

"There will be a great deal of wheat marketed in July and August. See that all elevator scales are inspected and sealed before that time.

"If you are a weighmaster if possible provide that your city scales register automatically and work only when the fee is dropped in the slot. Such an installation will cost but little and will give you an opportunity to leave the scale and go out and do the necessary work in our community.

"Notify all dealers in measures to stock up with the low form of measures (see dimension table, page 18, Book of In-

structions), and refuse to seal all measures that do not conform to the requirements in shape and construction."

The report of the state board of health for March follows:

"During the month of March 72 samples of food were analyzed in the laboratories of the state board of health of which 38 were classed as legal and 34 illegal. Of the illegal samples 17 were milks which in almost every instance were so reported because of the presence of visible dirt. Four catsups were examined and all were condemned because of the fact that they were in whole or in part composed of decomposed or putrid vegetable matter. In other words they were made from rotten tomatoes. Six of the ten vinegar samples were illegal because of the fact that they were only partially fermented. Many of the samples analyzed are sent in either by the manufacturer who wishes to know whether or not his goods are saleable or by the consumer who doubts the purity of the product she is purchasing for her table. While the analysis of these samples is perhaps not contemplated under the law we believe that the cause of pure food can be served in no better way.

"Twenty samples of drugs were examined during the month, most of them for the purpose of ascertaining whether or not they were misbranded or sold under extravagant claims. Six hundred and seventy-three places were inspected during the month of March and of this number ten were reported in excellent condition, 379 good, 223 fair, 47 poor and 14 bad. It is worthy of comment that all of the places reported as bad were dairies. Of the 44 dairies visited none were graded as excellent, none were even good; 13 were fair, 17 poor and 14 bad. If food inspectors were not optimists the condition of our dairies would drive them to despair. We have never taken a position favoring compulsory pasteurization of the milk supply, but the longer we study dairy conditions the more we are convinced that the only way to protect the consumer from the evils of dirty milk is to require all milk to be pasteurized before it is sold.

"Of the 247 grocery stores visited, four were in excellent condition, 171 were good, 66 fair and 6 poor. Fifty-nine of the 90 meat markets were in good condition, 25 were fair and 5 poor. Of the bakeries and confectioneries visited 44 were good, 31 fair and 7 poor. One place was reported as in excellent condition. Too many are in fair condition only. The same comment may be made concerning restaurants and hotels. But one of the 103 places were in excellent condition, 33 were good, 60 fair and 9 were rated as poor. Other places visited during the month were wholesale groceries, poultry houses, ice cream parlors, poultry houses, milk stations, etc.

"During the month 28 condemnation notices were issued against bakeries, grocery stores, hotels, meat markets and restaurants. Twenty-seven because of unsanitary conditions and 24 because of improper construction. It is worthy of note that in almost every instance the unsanitary conditions were in part due to improper construction. Men who go into the business of producing or selling food are not sufficiently careful that the building they propose to occupy is fitted to the use to which it will be put.

"But four prosecutions were brought during the month. Three because of the sale of dirty milk and one because of the sale of catsup containing benzoate of soda. The fines and costs imposed amounted \$82.40."

RUMFORD

The Wholesome Baking Powder

A scientific preparation being the result of extended research by the celebrated chemist Prof. E. N. Horsford, for many years Prof. of Chemistry in Harvard University.

Dietetically speaking, Rumford is without fault; as a leavening agent it is perfect; as a keeper it has no superior.

Its Purity is Unsurpassed.



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WE WILL rent you an understroke model Remington Typewriter or understroke Smith Premier, for One-Quarter of a year—THREE MONTHS—for \$5.00—the most advantageous rental terms ever offered by the manufacturers.

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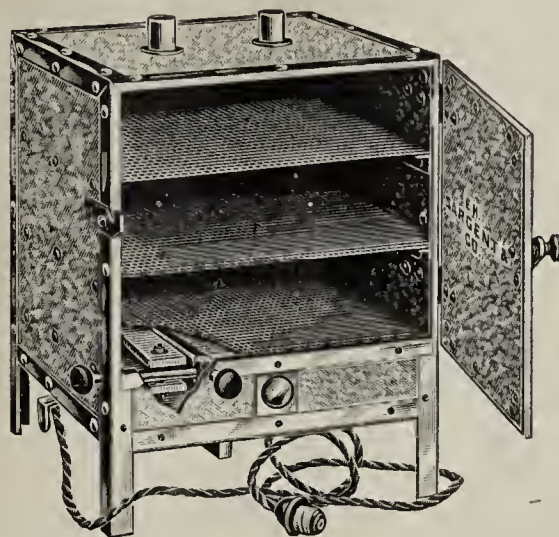
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With Automatic Temperature Control

(Patented Jan. 6th, 1914.)



THE demand for a constant temperature drying oven at a moderate price has led us to put upon the market this desirable piece of apparatus. Electrically heated and automatically controlled, the oven may be set for any temperature between 70°C and 150°C, and is guaranteed to maintain it within 1°C.

*Adapted for and used in food laboratories
with excellent results.*

PRICE complete with six-foot cord, plug, thermometer and directions for operating **\$25.00 net**

Descriptive pamphlet on application.

Our complete catalogues furnished upon request.

E. H. Sargent & Co.

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Food and Drug Law

McLanahan & Burton announce the initiation of a Department of Food and Drug Law, in charge of Mr. Gustavus B. Spence, for the past four years a member of the Office of the Solicitor, United States Department of Agriculture.

Appearances before all Boards and Bureaus of the Department of Agriculture and other Federal Departments, State Food and Dairy Commissions, and in State and Federal Courts. Correspondents in every State.

Revision of labels and advertising literature.

McLANAHAN & BURTON

Union Trust Bldg.,

Washington, D. C.

B. HELLER & COMPANY



THE PLANT BEHIND OUR PRODUCTS

Manufacturing Chemists

CHICAGO, U. S. A.

Minnesota Correspondence

(From our Staff Correspondent.)

April 30, 1914.

MINNESOTA butter will soon become a product better known to the consumer than before, and the products of this wonderfully resourceful state's best creameries and butter makers will soon be available to the consumer in an identifiable way.

This new era in butterdom will be brought by the practical working out of the law passed by the 1913 Minnesota Legislature, permitting certain creameries of the state that conform to certain rules and regulations to use the official stamp "Minnesota Brand Butter, made under state rules and regulations," upon their butter packages.

In order for any creamery to use this official brand stamp they must first obtain a license from the Minnesota State Dairy and Food Commissioner. To obtain the license to use this brand, the creameries must turn out a product which scores at least 94, according to the established method of judging, and it shall not fall behind this score more than three times a year when inspected at least once a month. The dairy commissioner may at any time take a sample and have it scored.

The creamery must furnish a list of its patrons and their dairies will be inspected and scored and must reach a high standard, according to the government scoring system. The herds must be free from tuberculosis by the tuberculin test. Also, the plant premises and manufacturing process of the creameries will be scored and must reach a definite standard.

All cream used in the manufacture of butter must be pasteurized and all preservatives prohibited. This shall be known as *Minnesota A No. 1*.

There will be a second grade allowed to be stamped *Minnesota B*. This quality shall score one point less (93), and the herds will not need the tuberculin test and the score on the dairies and creameries may be several points less than required for A No. 1 grade, yet the regulations will insure a very high quality butter, however.

The commissioner may revoke the license at any time the standards of quality are not adhered to.

The State of Minnesota has operated a model creamery plant at Albert Lea for more than a year, the idea being to work out the best methods in operating, buying cream, packing, creamery accounting and teaching the art of butter making. This plant is supplementary and its work is on a more commercial scale than the dairy school at the College of Agriculture. In this way the dairy industry has a model example and demonstrates the value of modern dairy science and invention applied in a practical way.

The enormous and increasing demand for the output of this creamery led to the idea that if other creameries of the state maintained the same standard and were permitted to use the "Minnesota Brand," the demand for this defined and identified type of butter will likewise be increased to the lasting good and uplift of the dairy industry. The public will have some means then of knowing the mark of high quality butter, and the taste of it will be a revelation to many who have used butter repacked under some local brand name, the source of which they know nothing.

Minnesota butter makers have taken twelve out of fourteen prizes in the annual competition of the National Creamery Buttermakers' Association, two of which were loving cups and nine of them one hundred dollar silk banners. In 1913 Minnesota had forty-one competitors whose average score (95.69) was higher than the average score of the ten highest from any other state.

Heretofore these high grades of butter were shipped east and packed under some local brand, but now, as the "Minnesota Brand" comes into its own, its name alone will be sufficient advertising and very many creameries of the state will no doubt make every effort to qualify under this brand and capitalize its benefits.

The food department has held as "misbranded" preserved products made from apple base with flavoring of other fruits when labeled as follows: (This brand being fictitious.)

DOE
Brand
PRESERVES.
John Doe & Co.

followed by an independent supplementary sticker an inch or so below reading in small type—

Apple—Peach—Sugar
Contents:
26 oz. Avordupois.

It was ruled this product should be called a "compound."

Prosecutions for using sulphites in hamburger steak have been in continued order here. Manufacturers of the preservative claim they never recommend their product for other than antiseptic purposes around a butcher shop, and yet butchers who are not ordinarily wise to the use of preservative drugs all seem to "discover" the value of sulphites in keeping up the appearance of their product and hiding its character. Maybe the information leaks out in amongst the humor of the supply house salesman's yarns, or perhaps butchers may be adepts in "falling" for a broad hint.

WILLARD GIBBS MEDAL TO BE PRESENTED TO PROF. IRA REMSEN.

The Chicago section of the American Chemical Society will present the fourth Willard Gibbs medal, founded by William A. Converse, to Dr. Ira Remsen. The presentation will take place on Friday evening, May 15, 1914, in the Louis XVI room, Hotel Sherman.

SPEAKERS.

"The Willard Gibbs Medal"—Harry McCormack, M. S., chairman Chicago section.

Presentation of the Willard Gibbs medal to Ira Remsen, A. B., M. D., Ph. D., LL. D., D. C. L., by Prof. William A. Noyes, A. M., Ph. D., LL. D., professor of chemistry, University of Illinois, editor of The Journal of the American Chemical Society.

The Willard Gibbs address, "The Development of Chemical Research in America"—Ira Remsen, A. B., M. D., Ph. D., LL. D., D. C. L., past president John Hopkins University.

SHERER - GILLET CO., 1707-1709 S. Clark St., CHICAGO, ILL.



Fight Flies With Tanglefoot!

For 30 years Tanglefoot has been America's surest, safest, most sanitary fly-destroyer. It is non-poisonous, easy to use, and costs but a trifle. Each sheet is capable of killing 1,000 flies. And Tanglefoot not only kills the fly, but seals it over with a varnish that *destroys the germs* as well. In buying, ask for the genuine "TANGLEFOOT"—it costs you no more and lasts twice as long as the no-name kinds sold merely as fly-paper, or sticky fly-paper.

Made only by The O. & W. Thum Co., Grand Rapids, Mich.

Gasoline will quickly remove Tanglefoot from clothes or furniture.

How to Use

Open *Tanglefoot* slowly. In cool weather warm slightly. For best results place *Tanglefoot* on chair near window at night. Lower all shades, leaving one at the *Tanglefoot* window raised about a foot. The early morning light attracts the flies to the *Tanglefoot*, where they are caught. (33)

Missouri Correspondence

ST. Louis, April 28, 1914.—The case of State of Missouri vs. Frank McCormick, recently decided by the St. Louis Court of Appeals, is of considerable importance to corporations and firms conducting establishments where food and drugs are sold. The defendant was charged with a violation of the law relating to the sale of adulterated food, in that he sold to one Gaia a quantity of eggs which were alleged to be adulterated in that they consisted wholly or in part of a diseased, filthy, decomposed, putrid and rotten animal substance and were unfit for food. The facts were these:

The defendant was an employee of a commission company. Some person in the employ of Gaia, who carried on a grocery store, called up the commission company by 'phone and said that the Gaia concern wanted to buy a case of first class eggs. Defendant McCormick answered the call, took the order, and told the Gaia man that he would see that they got a case of first class eggs. Some time that day, the defendant picked out eighteen cases of eggs, turned them over to a teamster in the employ of the commission company, and told him to deliver seven of them to one customer, ten to another, and one to Gaia. The eggs in all of the cases had been candled and pronounced to be in a first class condition. The defendant candled some of them himself. The teamster delivered the eighteen cases to the several parties, one to Gaia, selecting the cases just as they happened to be loaded in the wagon, none of them being marked for any particular customer. Many of the eggs in the case delivered to Gaia were found to be rotten. It appeared in the evidence that at the time of the sale, the defendant was a general utility man in the employ of the commission company. That it was a part of his duty to take orders for eggs, when orders came in to the commission company, and turned in the orders to the office of the company. He took this order from Gaia's clerk, quoting the price, and promised to have the delivery made that afternoon. After taking the order, the defendant wrote it out on a slip, and passed the slip into the office of the commission company, where credit of the proposed customer was passed on by the credit man in the office. The credit man billed the case of eggs to Gaia in accordance with the slip, and made out a delivery slip or sales bill in duplicate, and gave them to the defendant, who handed them both to the teamster, the latter retaining one to be signed by the purchaser. The defendant was tried by a jury in the Court of Criminal Correction, convicted and fined \$50.00. From this conviction he appealed to the St. Louis Court of Appeals. The latter tribunal in passing on the case, per Reynolds, C. J., said that "This defendant had nothing to do with the sale beyond taking the order and reporting it to the office of his employer, and when the order was accepted, selecting and shipping the goods. The various sections of the statute referred to are leveled at any person, firm or corporation who shall sell adulterated food—as adulterated food is defined. Clearly this defendant did not make the sale. He had no interest in it or connection with it in any capacity other than a clerk or salesman for the company, in whose employ he was at the time. It was therefore,

a sale by the company. The defendant is a person it is true, but not the person making the sale, in any sense of the statute. The intended purchaser called up the commission company and made the purchase from it through the defendant in a measure, but not from him. All that the purchaser knew of the defendant was that he was the one who answered the telephone call, and took the order for the commission company." The judgment of the trial court was reversed—all the judges concurring.

Nearly all the cases brought by the present administration of the food and drug department have been brought against the corporations or firms or persons owning establishments where food and drugs are manufactured and sold. The statutes bringing a direct liability to these persons for sales made by clerks in their employment are clear beyond a doubt, and have been time and again upheld by the Missouri Appellate Courts.

It seems contrary to the spirit of justice which underlies the criminal law to hold an employee liable for selling adulterated or misbranded articles, where he is acting under the authorities or by the direction of his employer. On this hypothesis even handed justice would seem to demand that the employer alone should be held responsible.

ICE CREAM.

The test case in the information for selling ice cream alleged to be adulterated filed by the Food and Drug Department of the state in the office of the prosecuting attorney for the city of St. Louis, was recently decided by Judge Calvin H. Miller of the St. Louis Court of Criminal Correction. The information charged a sale of ice cream which was adulterated in that a valuable and necessary ingredient had been abstracted in part from it. The prosecution was based on the general food and drug statute, and Section 639 Revised Statute 1909, defining ice cream as a frozen product made from cream and sugar with or without a natural flavoring, and containing not less than 14 per cent of milk fat. The information in this case (*State vs. National Ice Cream Company*), charged adulteration in that the percentage of milk fat was only 7 per cent. A demurrer was filed to the information alleging that the law was unconstitutional, violating both the constitution of the United States and that of the State of Missouri, and that the standard could not be enforced, as no penalty was provided for its violation. It was contended by the prosecution that the law establishing the standard and that defining adulteration, and providing for penalties, when same occurred, should be read together. The demurrer to the information was sustained, but as no opinion was handed down by the court, it is difficult to understand what view it took of it. The commissioner has requested the prosecuting attorney of St. Louis to appeal the case to the Supreme Court of the state, with a view of having the status of manufacturers and vendors of ice cream below the required standard in criminal prosecutions for same established. Another portion of the Missouri Statute provides for adulteration of food which does not conform to the standard of strength, quality and purity, now or hereafter to be established by the U. S. Department of Agriculture.

Coca-Cola

Has Aroused An Interest In The Study of Caffeine



Send for free booklet
which goes more
deeply into what we
have stated above.

WE BELIEVE HONESTLY,
that controversial discussion of Coca-Cola has done more to cause investigators to dig deep into the subject of caffeine than any other influence during the last decade.

We are glad—not only because it shows the widespread popularity of the beverage, but because the deeper and more scientific the investigation the more completely the wholesomeness of Coca-Cola is proven.

Investigation by the Unprejudiced Scientist Has Proven These Facts

- ¶ That Caffeine is a “True” stimulant.
- ¶ That Caffeine has no secondary or depressant effect.
- ¶ That Caffeine is not habit forming.
- ¶ That in its physiological value Caffeine is closely related to a *food*.
- ¶ That Coca-Cola is harmless — wholesome and beneficial.

The Coca-Cola Co.
Atlanta, Ga.

Ohio Correspondence

(From our Staff Correspondent.)

COLUMBUS, O., April 28.—With the return of warm weather the Ohio Dairy and Food Department is preparing to give very close attention to dairy products. The milk and dairy inspectors have received special instructions along this line. Carelessness on the part of dairy-men evidences itself in the low keeping qualities of product. Inspectors will be vigilant in correcting this dereliction over the entire state. The testing of cream-test and butter fat-test scales is being continued, as the best of results has come from this work since it was begun, in promoting satisfaction between the buyer and seller of dairy products.

Another very live issue with the department just now is the protection of the public against bad eggs. Since the first of the year this matter has been in the hands of Septimus Mawer, one of the regular force of food inspectors. An illustrated leaflet headed "Bad Eggs Warning," has been issued for wide distribution. It contains a number of valuable suggestions to producers on the selection of fowls, breeding, keeping nests free from vermin, preventing fertilization, culling out unfit eggs, and methods of marketing. If these suggestions were generally followed there would be small grounds for complaint from consumers on quality.

Ohio has no egg inspection law. Penalty for bad eggs must come under the general statute which prevents the sale of those unfit for food. The department has drawn up an egg-inspection measure which it hopes to have passed at the next meeting of the legislature. In the meantime inspection is being urged upon producers and handlers of eggs as a good business precaution. Following are the provisions of the proposed law:

1. It shall be unlawful for any person, firm or corporation engaged in the purchase, sale, delivery or shipping of eggs to buy, sell, barter, trade, pack, ship or deliver any eggs for human consumption without first candling said eggs, or causing same to be candled; and any such person, firm or corporation who shall buy, sell, barter, trade, pack, ship or deliver any such eggs without first candling same or causing the same to be candled, and without removing all diseased, decomposed, putrid, infected, tainted or rotten eggs from those candled, shall be guilty of a misdemeanor and punished as hereinafter provided.

2. The word "candle" as used herein shall be construed to mean the examination of eggs by means of natural or artificial light, in such manner as to disclose to the person examining the same whether the eggs so examined are diseased, decomposed, putrid, infected, tainted or rotten.

3. All eggs in which bacteria have developed, such as "spot," "rots," "black rots," "white rots," or "mold rots," or eggs containing blood rings or chick developments, shall be deemed unfit for human consumption.

4. A case of eggs shall contain thirty dozen, and it shall be considered a violation of the third preceding section for any person, firm or corporation to buy, sell, barter, trade, pack, ship or deliver any case of eggs for human consumption that contains more than two per cent of diseased, decomposed, putrid, infected, tainted or rotten eggs.

Violations of the proposed law will carry a fine of from \$50 to \$100 for first offense, and from \$100 to \$300 or imprisonment for not more than 60 days in jail, or both, for each subsequent offense.

Commissioner Strode is greatly interested in the matter of transporting eggs by parcels post. Acting under his instructions, egg Inspector Mawer has recently made a test shipment of six dozen eggs. They were divided into three containers—one of one, one of two and one of three dozen. These were mailed from Grand Rapids, O., to Columbus, O. They were carried over a rural route of 12 miles and then by train in mail bags, 150 miles. The eggs arrived in perfect condition, not one being broken. They were carried in what is known as the Diamond Egg Box.



DIAMOND EGG BOX, MADE BY THE DIAMOND EGG BOX CO., Minneapolis, Minn.

Used by the Ohio Dairy and Food Department in successful trial of shipping eggs by mail.

The commissioner sees no obstacle in the way of egg producers thus dealing direct with the consumer, large and small, except that of price. Postage from the second zone where the eggs were mailed cost seven cents per dozen, and the expense of the containers ran the expense up to 11 cents per dozen above the market price of the eggs where shipment originated. Containers can be returned, however, and used again at a saving from first cost.

In the matter of substitution in serving food products at hotels, boarding houses, restaurants and cafes, which is now engaging the energies of the department in a vigorous way, a notice is being sent out to all proprietors of such places, which reads:

1. Where coffee is served, it shall be made from pure coffee, but if chicory or cereal or other substances are used in its preparation, a placard shall be conspicuously posted in the place where served with the words "Coffee with chicory (or cereal) added served here."

2. Where oleomargarine, butterine or other substances resembling butter is served a placard shall be conspicuously posted in the place where served, with

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THE FEDERATION
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Ask the following publications what they think of us: Merchants Trade Journal, Des Moines, Ia.; Omaha Trade Exhibit; Interstate Grocer, St. Louis, as well as thousands of satisfied clients throughout the United States.

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LEAGUE**

6231 STEWART AVE., - CHICAGO

AN IMPORTANT ANNOUNCEMENT

TO THE JOBBER AND RETAILER



The St. James Importing Company, of New York and London, the well-known distributors of Waw Waw Sauce, has been bought by men of strong financial backing who bring to the Company not only ample resources but also the full benefits of many years' experience with one of the largest and most successful manufacturers of food products in the country.

Plans are already laid to place Waw Waw in its deserved position as the King of Table Sauces.

We cannot make Waw Waw Sauce itself any better but we can and will make Waw Waw Sauce a better seller.

An extensive advertising campaign in the leading Journals is now in course of preparation. No pains, expense or effort will be spared to make Waw Waw a leader in easy, steady selling, just as it is now a leader in quality.

Full details of the new plans will be mailed to jobbers and retailers throughout the country. In the meantime the already increasing inflows of orders are being filled promptly from our New York warehouse.

SPECIAL—If you are not fully acquainted with the unusual merit of Waw Waw Sauce, write at once and a full size sample bottle will be sent for trial on your own table.

St. James Importing Company NEW YORK

E. PRITCHARD

Packer and Manufacturer
of the Finest

"EDDYS"

BRAND

**Canned Foods,
Jellies, Preserves,
Plum Pudding,
Sauces, Table Delicacies,**

and

**PRIDE OF THE FARM
Tomato Catsup**

Bridgeton, N. J.
and 331 Spring St., New York

DAIRY AND FOOD DIVISION

1914

AGRICULTURAL COMMISSION

OF OHIO



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16. MARION J. DOTTER, STENOGRAPHER
17. BESSIE STRODE, CLERK



Hanak's Sanitary Display Counter

Mr. Food Commissioner, Mr. Sanitary Inspector.

You officials whose duty it is to enforce sanitation and bring about less contamination in foods

We Have a Message for You!

We want you to know the **Hanak's Sanitary Display Counter**. This counter is designed for the purpose of protecting foods from contaminating influences.

May we send you our catalogue?

The B. B. Hanak Company

West Randolph and Ada Streets
CHICAGO, U. S. A.

Oak Grove Oleomargarine

Eminent food authorities attest the purity, cleanliness and nutritive value of Oak Grove Oleomargarine.

Housewives endorse it for cooking and shortening, and as a wholesome, economical spread for bread, cakes and muffins.

Oak Grove Oleomargarine is made from purest materials. Every process in its manufacture is under the supervision of U. S. Government inspectors.

Sold by leading dealers

Friedman Manufacturing Co.
CHICAGO

Illinois Vinegar Mfg. Company

19th and Rockwell Streets
CHICAGO, ILL.

**MANUFACTURERS OF HIGH GRADE
DISTILLED VINEGAR**

SPIELMANN BROS. CO.

MANUFACTURERS OF

**CIDERS, VINEGARS &
COMPRESSED YEAST**

MAIN OFFICE

Sheffield and North Aves.
CHICAGO, ILL.

H E N N I N G ' S HIGH GRADE PRODUCTS

Distilled Grain Vinegar, Cider Vinegar,
Fermented Sugar Vinegar,
Catsup, Prepared Mustard, Sauces,
Olives, Sauerkraut, Pickles.

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MANUFACTURERS AND PACKERS

Barrett & Barrett

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**REFINED CIDER
AND
CIDER VINEGAR**
"ALWAYS GOOD"

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WE ARE the largest manufacturers in Chicago of
Catsups and Prepared Mustards, guaranteed under
the National Food and Drugs Act of June 30, 1906.

HUSS-EDLER PRESERVE CO., 614 to 622 West Kinzie St
Chicago, Illinois

the words "Oleomargarine sold and used here."

3. Where milk is served it shall be of the standard quality, but if skimmed milk is served a placard shall be conspicuously posted in the place where served with the words "Skimmed milk served here."

4. The cards placed therein shall be white and not less than 10 by 14 inches in size, printed in plain black Roman letters not less than 12 line pica.

At the convention of the Ohio Confectioners' Club held here April 16 and 17, the new sanitary code governing candy manufactories was adopted, as passed upon by the department. B. S. Bartlow, chief of the food bureau, addressed the body, giving an interesting explanation of how the code would be enforced and the manner in which it would work out to the good of the manufacturers. There was entire harmony between the convention and the department in this reform.

Prosecutions have gone on steadily during April, involving for the most part maple sugar, milk and narcotic cases. An average number of favorable decisions was handed down by the courts and fines aggregating a considerable sum remitted. Since the war on the illegal sale of narcotics began last fall the courts have inflicted fines against violators in excess of \$6,000. Stiff prison sentences have also been given in not a few instances.

During the month the department clashed with the local food inspector of Cincinnati, who gave out that he would not enforce the law against tobacco-chewing in factories producing certain food products. The department through its own inspectors is looking after the matter. To the claim that tobacco-chewing does not spread disease, Commissioner Strode replies that spray from the saliva exuded flies into the product, often carrying tuberculosis germs with it. Where such product is not afterwards sterilized before being eaten, the germs are taken directly into the body.

Upon solicitation of the department, the Columbus Medical Academy has arranged for a lecture here by Paul N. Leech, M. D., Ph. D., head of the chemical department of the American Medical Association, with headquarters in Chicago. The lecture will deal with self-drugging and the composition of fraudulent patent medicines and nostrums.

An exhibition will be on display and the lecture will be illustrated with lantern slides.

Marion J. Dotter, of Columbus, has been appointed to the force of food inspectors, to fill the vacancy caused by the promotion of L. G. Bingham to canning inspector, as successor to the late Le Roy Robertson. Mr. Dotter was formerly a stenographer in the offices of the department, and qualified for his new place by taking the civil service examination. Miss Myrtle Morgan, of Columbus, succeeds him in his old position.

NEW VEGETABLE FOOD.

For persons who like novelty in their food and in their gardens, an interesting field for experiment is offered by the new Japanese vegetable "UDO."

The blanched shoots of the "UDO" have a characteristic flavor. The flowers attract bees and flies in such numbers that a field of it is usually humming with insects. As a honey plant, therefore, the "UDO" deserves the attention of beekeepers.

In the cooking of UDO there is still abundant room for innovators. In all experiments, however, one thing must be remembered. When raw, the stems contain a resinous substance which gives them a decided, and

to many persons unpleasant taste of pine. It is, however, easy to eliminate this by soaking thin slices of the stems in ice-cold water for an hour or two, or by boiling them in two, or three waters, as is often done with strong-flavored vegetables.

UDO-ON TOAST.—Peel the shoots and drop them into cold water. Cut them into 4-inch lengths. Boil them in salt water for 10 minutes, then change the water, adding a fresh quantity of salted water and boiling until quite soft. Prepare a white sauce, such as is used for cauliflower or asparagus, put the UDO in it, and allow it to simmer until thoroughly soft. Serve on toast in the usual way. If there is too much of the pine flavor, as there may be if the shoots are not thoroughly blanched, a second change of water will remedy this.

UDO SALAD.—Peel the shoots, cut them into 3-inch lengths, and then split them into thin shavings, letting these fall into ice water as they are made. Allow them to soak in the water for a half hour or an hour, so as to remove the resinous material in them. Serve with a French dressing of pepper, salt, oil, and vinegar. Do not dress the shavings until just before serving, as they become stringy on standing in oil.

UDO SOUP.—Remove the skin from the shoots. Cut in pieces one-half inch long and wash thoroughly in cold water. Cook until tender and mash through a colander. Add a pint and a half of milk, one-half pint of cream, two tablespoonfuls of butter, and one tablespoonful of flour, mixing the flour and butter until smooth. Season with pepper and salt. (Recipe for one bunch of UDO; enough for five persons).

IMPORTANT CONFERENCE AT WASHINGTON.

A very important conference is to be held in Washington on May 2, between the committee on collaboration and the executive committee of the National Trades Conference and Secretary Houston of the Department of Agriculture, and Dr. Carl L. Alsberg, Chief of the Bureau of Chemistry.

The conference is notable by reason of the fact that it marks the beginning of a new era of co-operation between the food control officials, the food trade and consumer generally, and with a common interest. The membership of these committees is as follows:

President—Louis Runkel, American Specialty Mrfs. Association.

First Vice-President—H. W. Hoops, National Confectioners' Association.

Second Vice-President—Theo. F. Whitemarsh, National Wholesale Grocers' Association.

Third Vice-President—W. M. McCormick, Flavoring Extract Manufacturers' Association.

Fourth Vice-President—C. F. Mueller, Jr., National Association of Macaroni and Noodle Manufacturers.

Executive Committee—The officers and A. P. Husband, Millers' National Federation; William B. Harris, National Coffee Roasters' Association; Representative of Oyster Growers' & Dealers' Association of North America.

Committee on Collaboration—The above officers and Charles Wesley Dunn, American Specialty Manufacturers' Ass'n; Helen Louise Johnson, chairman, Home Economics Department, General Federation of Women's Clubs; Mary Wood, chairman of the Legislative Committee, respectively of the New York State Federation of Women's Clubs and the New York City Federation of Women's Clubs.

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Materials, Epsom Salts

Pennsylvania Correspondence

(From Our Staff Correspondent.)

HARRISBURG, Pa., April 27.—Complete reports of the work of the State Dairy and Food Division Show that during 1913, 6,846 samples of various foods and other articles coming under the supervision of that branch of the Pennsylvania state government were analyzed by the state chemists and Commissioner James Foust is able to show a record of 1,007 cases closed up and fines secured for violation of the food laws. The work of the division was more actively pressed than in several preceding years, but the reports show a steady decrease in the number of instances where violations were detected and localities which formerly gave considerable trouble presented comparatively clean lists. The co-operation of manufacturers and jobbers was given in many instances and numerous cases were discovered where the small dealer had not taken steps to protect himself or where he had gone so far as to remove the brand marks from packages. As a result he and none other paid the penalty.

The detail of the reports of samples taken show that 3,018 of the analyses were of milk, cream 598 and vinegar 662, butter coming next with 417, and ice cream with 317. Practically no use of formaldehyde was found in the milk samples, the violations being of added water mostly. Food samples of all classes, including canned goods, candies and the like amounted to 1,102, the great bulk of offences being of misbranding. The showing on dairy products is better than in several previous years.

Of the cases terminated, 372 were for violation of the pure milk law and 299 for violation of the food act, including misbranding, unfitness for food and adulterations. The prosecutions carried through for violation of the vinegar act amounted to 122, of which 67 were of adulterated cider vinegar.

The financial statement of the bureau shows receipts of \$173,789.76 from licenses and fines of various kinds and disbursements of \$75,587.12. This shows an excess of \$98,202.64. When it is considered that the whole appropriation to the division for two years, including salaries and everything else, amounts to but \$184,500 it can be seen where the division is a money maker for the state.

The summary of the third quarterly report of the food products in cold storage under the act of 1913 covers the period between January 1 and April 1, 1914, and shows that eighty-two cold storage plants are operating under state licenses. The reports show that the decline in butter and eggs usual in the spring time has occurred and that spring chickens have caused that item to jump. The reports, dated April 1, show the following: Poultry 3,253,475 pounds; butter 952,645 pounds, against over 10,000,000 on October 1; eggs in shell, 11,568 dozens, against 10,500,000 dozens on October 1; eggs out of shell 74,638 pounds; fish 1,204,418 pounds; game 2,098 pounds; beef 32,256 pounds; veal 18,262 pounds; sheep 40,793 pounds; hogs 4,936 pounds. The parts of carcasses not classified and held in storage amounted to 186,225 pounds and the parts classified were as follows: Hogs 1,558,009 pounds; beef 501,607; sheep 106,830 pounds and veal 16,759 pounds.

Some odd reports are being received at the office of the State Chief of Standards, the supervising officer of sealers of weights and measures of the cities and counties, practically all of which now have their own sealers. One report stated that the sealer in a northern county had found merchants giving overweight in a dozen instances. They had bought some weights which were too heavy. In another county several measures were tested which showed that the storekeeper was losing on every sale. It is stated that orders for new equipment were given without loss of time.

People interested in food products and their sale as well as many attorneys throughout the state are awaiting the result of the hearing at Erie on the appeal of the cases growing out of prosecution for violation of the pure ice cream act. In this action the right of the state legislature to fix standards is challenged and it is intimated that if the case is lost in the county courts it will be appealed to the state supreme court and if necessary, to the supreme court of the United States for a ruling. The state officials are confident that they will win and that the right of the commonwealth to fix standards not only for milk and cream and ice cream, but for all kinds of foods and drinks will be upheld. This is probably one of the most important suits involving food to be brought in the state with possible exception of the cold storage act least.

The cold storage case, by the way, remains undisposed of by the Dauphin county court at this date, although a decision on the constitutionality, is momentarily expected. No matter which way it goes an appeal to the higher court is certain.

Steps to vigorously enforce the state law against the sale of "bleached" flour are being taken by Commissioner James Foust who has been in consultation with the attorney general's department and who is proceeding along the line that the law prohibits the use of any deleterious substances and that the use of nitrous products is against the statutes. A large number of samples of flour have been taken and are now being analyzed. State millers have been watching the results with considerable eagerness.

State agents swooped down on a number of Pittsburgh and Philadelphia merchants a few days ago and rounded up about forty for the sale of "penny" candy goods. Most of the articles which caused arrests were of alleged licorice candies which were found to be utterly innocent of licorice. Another series of raids which caused some stir in Philadelphia was upon restaurants which were selling "coffee" made of various mixtures. Several high class restaurants were among those visited by agents and their proprietors paid fines.

Dr. Samuel G. Dixon, state commissioner of health, has caused some comments among the lunch goods trade and among people who conduct quick lunch places by an attack upon the methods in such establishments. He pronounces them more or less dangerous because of the custom of rushing things, which causes the customer to hurry and some comments not favorable to the manner of preparing foods have been heard.

The usual spring inspection of the "soft" drinks be-

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Quaker Oats is now put up also in a 25-cent size, nearly three times as large as the 10-cent size. By saving in packing it offers you 10 per cent more for your money. See how long it lasts.



That Quaker Oats Aroma

The very aroma of Quaker Oats tells its exquisite flavor. You know before you taste it that there's choiceness in this dish.

Only the big grains yield that aroma. And, without the Quaker process it could never be kept intact.

That's why Quaker Oats is distinctive.

We get that flavor and we preserve it. We discard all the grains which lack it, so the flavor is never diluted. If you enjoy it, you can always get it by simply saying "Quaker." And without any extra price.

Quaker Oats

Rolled from the Largest Grains

We get but ten pounds of Quaker Oats from a bushel, because of this selection. But those are the luscious flakes. The others are good enough for horses, but not for boys and girls.

We started to do that 25 years ago, and the fame of this flavor spread. Now a hundred nations send here to get Quaker Oats. And millions of children of every clime enjoy it every morning.

Quaker Oats, as an energy food, excels anything else you know. It is known as "the food of foods."

But, without that taste which makes it inviting, few children would eat half enough.

Serve Quaker Oats in large dishes. Small servings are not sufficient to show in full its vim-producing power.

10c and 25c per Package
Except in far West and South

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THAT old standby, Kingsford's Corn Starch, is very new-fashioned indeed since housewives are looking for purity in food products, nutritive value and moderate cost.

Owing to its extreme delicacy and purity, Kingsford's takes the full flavor of any kind of seasoning. With it can be made dozens of dainty desserts and appetizing dishes that give variety to the home table.

You can have no idea of the possibilities of Kingsford's if you have been using ordinary Corn Starches and inferior substitutes, which are at the same price as Kingsford's.

See that you are given the original and genuine Kingsford's Corn Starch of Oswego; prepared by the careful process that has made Kingsford's the finest Corn Starch for over sixty years.

Send your name today for Cook Book 00, that tells all about making dainty desserts—and gives 168 recipes for all kinds of dishes.

National Starch Company
NEW YORK

ing sold in the state has developed a number of violations of the laws against adulterations and scarcely a day goes by without some arrests being reported. The small stores in the poorer sections of cities are being flooded with goods made from preparations which never knew the fruits from which they are claimed to have been derived.

Cold storage people in Philadelphia, which were behind the suit to test constitutionality of the act of 1913, are planning to make some vigorous representations to the commission which will resume its study of the cold storage business in June. This commission is charged with the duty of making recommendations for changes in the law and it is the plan to submit to it a number of points which show defects in the law and where it needs clarification if nothing else. State officials say that their trouble is not with the cold storage warehouse owners or managers at all, but with the merchants who sell cold storage products and do not post notice that the goods came from storage. If something can be done to overcome the retail end's defects it is predicted that things will go smoothly.

TO KILL COCKROACHES.

With the approach of warm spring weather, cockroaches multiply rapidly and leave their winter hiding places. If cockroaches are troublesome in the house, the following simple remedy, recommended by one of the Department of Agriculture's scientists, will unquestionably destroy great quantities of the pest and keep them in check as effectively as troublesome insect powders and dangerous poisons:

Mix one part of plaster of Paris and three or four parts of flour. Place this dry mixture in a saucer or on a flat piece of wood or tin, where roaches are numerous. Near by place another flat plate containing pure water. Supply a few inclines of wood or cardboard from the floor to the edge of the plate or saucer to give easy access. Float one or two thin pieces of wood on the water so that they will touch the edge of the dish. The insects readily eat the plaster mixture, become thirsty, and drink. The water makes the plaster set in the intestines and kills the roach. Such traps may be placed in pantries, and bakeries in particular, with good results.

Another simple trap which has been successfully used is the following: A deep vessel or jar is partially filled with stale beer, for which roaches seem to have a special fondness. A number of flat strips of rough wood are placed at an incline against the vessel and bent over so that they project into the interior a few inches. The roaches climb up the inclined sticks to get the beer, and slip off into the vessel.

This trap proves more attractive to certain species of roaches than to others. The so-called oriental cockroach is more readily attracted by this trap than the "Croton bug." The latter received its name because it came into prominence at the time of the completion of the Croton system of waterworks in New York City. The extension of this system gave it means of entering into residences and greatly encouraged its spread. Dampness of water pipes is favorable to it, and it may be carried by the pressure of the water long distance through the pipes without injury. This roach has so multiplied in the eastern United States that it has now become the commonest and best known of the domestic species.

A French trap that has been used with success is the following: Some attractive bait, such as stale beer or flour or sliced raw potato, is placed in a box, the cover of which is replaced by four glass plates inclined downward, funnel-like, and closely joined except at the bottom. The roaches fall from these pieces of glass into the box and are unable to escape.

There are various poisons which, it is asserted are fairly effective as remedies against roaches. The only one of these that seems to give satisfactory results is a phosphorous paste, sold in the form of pills. It consists of sweetened flour paste containing 1 to 2 per cent is phosphorus, and is spread on bits of paper or cardboard and placed in the runways of roaches. This mixture has been used very successfully in the department to free desks from Croton bugs, numbers of the dead insects being found in the drawers every day during the time the poison was kept about. As phosphorous is poisonous to human beings and domestic animals, besides being highly inflammable, it should be used very carefully.

Considerable relief may be gained by a liberal use of pyrethrum powder. It is not a perfect remedy, however, and is at best but a temporary expedient, while it soils shelves and other objects over which it is dusted. It should be used fresh and liberally applied. Roaches are often paralyzed by it when not killed outright, and the morning after an application the infested premises should be gone over and all dead or partially paralyzed roaches swept up and burned.

Pyrethrum may also be burned in an infested apartment. The smoke and vapors generated by the burning of this insecticide are often more effective in destroying roaches than the application of the substance in the ordinary way as a powder. There is no attendant danger of explosion, and the only precaution necessary is to see that the room is kept tightly closed for from 6 to 12 hours.

That this pest has long been known in this country is evident from the following description, written in 1748, in Catesby's Natural History of Carolina:

"The cockroach.—These are very troublesome and destructive vermin, and are so numerous and voracious that it is impossible to keep victuals of any kind from being devoured by them without close covering. They are flat, and so thin that few chests or boxes can exclude them. They eat not only leather, parchment, and woolen, but linen and paper. They disappear in winter and appear most numerous in the hottest days in summer. It is at night they commit their depredations and bite people in their beds, especially children's fingers that are greasy. They lay innumerable eggs, creeping into the holes of old walls and rubbish, where they lie torpid all the winter. Some have wings and others are without—perhaps of different sexes."

From December 1, 1913, when the new oil from the 1913-14 crop was placed on the market, to January 24, 1914, 403,000 gallons of olive oil were exported from Seville, in comparison with 29,500 gallons during the corresponding period of 1912-13, says a consular report. Many oil merchants from other countries came to purchase or make contracts for future deliveries, hence prices ruled abnormally high.

"Abandon the well whenever it is possible to use water from a public supply. Tap water may be less clear, warmer and apparently more costly, but it is safe, and safe water at meter or flat rates is cheaper than bad water and typhoid."

THE AMERICAN FOOD JOURNAL

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NUMBER SIX

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JUNE, 1914.

NUMBER 6.

Co-Operation

WHEN a food product is passed by all the Food Commissioners, the public feels that it must be pure food sold under an honest label. When a food product is passed by all but one of the Food Commissioners, and merely a question of nomenclature is involved, the thinking public will conclude that the food is all right and that the one Food Commissioner who differs from all his fellow officials is the victim of some idiosyncrasy of mind which prevents him from seeing things as they appear to normal minds. But when a food product is denounced as a fraud by, not one, but several of the leading Food Commissioners of the United States, the public is apt to conclude and rightly, too, that "there is something rotten in the State of Denmark."

The use of albumen in baking powder is a case in point. The National Food authorities pronounce the water-glass test, which can only be worked by using albumenized baking powder, a fraud upon the public, and they declare that the albumen in the baking powder is no aid in the baking. Several of the State Food Commissioners have denounced the use of albumen and have forbidden the sale within their State of baking powder containing it. Other Food Commissioners have publicly proclaimed that albumen in baking powder is a fraud and have deprecated the fact that the laws of their States were not sufficiently broad to enable them to stop the sale of such powders.

What has been the result? The few manufacturers who use egg albumen in their baking powders have attempted to go right ahead with the sale of the product in defiance of the rulings and warnings of the Food Officials. In States where rulings have been issued they have with the exception of one or two states started to fight the Food Commissioners in the courts.

This is a mistake of judgment which reacts not only upon the misguided users of albumen, but upon all the honest manufacturers of foods who are striving to sell an honest product in an honest way.

For years food manufacturers and the American Food Journal have been exhorting Food Officials to co-operate with the manufacturers and give them a chance to work out of some of their difficulties, instead of crushing them with multitudinous prosecutions for simple errors in labeling—honest mistakes, as it were. Now it is a poor rule that does not work both ways. IT IS UP TO THE MANUFACTURERS AND WHOLESALE PURVEYORS OF FOOD TO DO A LITTLE CO-OPERATION WITH THE FOOD OFFICIALS. When the sale of certain foods is found to lead to fraud, and the deception of the people, it is the duty of right thinking manufacturers and dealers as well, to refuse to handle such products and by so doing to hold up the hands of the Food Officials.

The National Pure Food Authorities. Dr. I add, Food Commissioner of North Dakota; Dr. Abbott, Food Commissioner of Texas; Commissioner Wallis, of Idaho; Commissioner Mickle of Oregon, Commissioner Hansen of Utah, Commissioner Groshon of Wyoming, the pure food authorities of Rhode Island and New Hampshire, Commissioner Dinsmore of Nevada, Dr. Crumbine, Food Commissioner of Kansas, Dr. Cogswell of the State Board of Health of Montana, have all denounced the use of albumen in baking powder, as leading to fraud and deception. If it were not a fraud, these eminent and disinterested men would not have pronounced it a fraud. The American Food Journal accepts their findings and urges upon manufacturers the bad taste and folly of attempting to hamstring the Food Officials on legal quibbles in the Courts. This Journal has always condemned Food Officials who persecuted honest manufacturers on technicalities, but it cannot stand for the defense of a proven fraud. Let all manufacturers comply with the rulings of the Food Commissioners and cease the use of albumen. It serves no purpose but to deceive.

GUARANTEED UNDER FEDERAL LAW.

ON and after May 1, 1915, it will be no longer possible for manufacturers to use the legend so long in use: Guaranteed under the federal law. The department of agriculture has sent out about 60,000 notices to manufacturers, notifying them that their guarantees filed under the food regulations will be stricken from the files and that thereafter the serial numbers assigned to such guarantees must not be used on the label or package of any food or drug. This action is in accordance with the regulations adopted May 5, 1914, by the secretaries of the treasury, agriculture and commerce, which abolish the use of the guaranty legend and serial number on foods and drugs.

The reason for this action by the government officials was that the legend was understood by many consumers to mean that the federal government had passed upon the quality of the product and certified to its excellence. Whereas in point of fact the legend and registered serial number merely signified that the manufacturer guaranteed his product to the dealer as being made to comply with the law.

Originally the intention of the department was to have on file the names of manufacturers who were willing to comply with the law. Such manufacturers were permitted to file a serial number with the government.

Manufacturers, with good intent no doubt, seized the opportunity thus offered to advertise the purity of their goods. By using their serial number and the legend guaranteed under the federal law, they gave out the impression that the guarantee was in fact by the government, whereas the government had nothing more to do with the thing than to grant the serial number to those who signified their intention of putting out food products that would comply with the law.

This innocent looking legend and serial number gave a great deal of trouble to food officials in the course of time. The consumer, feeling that the legend and serial number expressed government approval, naturally took it for granted that this was in fact a government guaranty of purity and excellence not to be disputed.

To the credit of the manufacturers be it said that in most instances, packages bearing the legend and serial number did in fact contain food that complied with the law. But there were many packages so labeled on the market whose contents would fall far short of the government's requirements. For this reason and the further reason that the legend and serial number did not express the fact it was generally thought to express the ruling already noted as made.

Under the new rule, manufacturers who desire to guaranty their goods may do so by incorporating such guaranty into their invoices, bill of sale or bill of lading. This will put the matter right with those who deal with the manufacturer direct and will protect the consumer from being a victim of a misunderstanding.

Under the new rule the manufacturer will be able to guarantee his goods to dealers, which puts the manufacturer in the position of assuming full legal responsibility for his goods. The dealer in turn may guaranty them to the consumer on the strength of the manufacturer's guaranty.

The federal officials showed a commendable regard for rights of manufacturers by putting off the date of the withdrawal of the legend and serial number for one year. This will give the manufacturer an opportunity to use up his old labels and have his new stock made to conform to the ruling of the secretaries.

Some one no doubt will revise the old legend so as to bring it within the law. At least so that it will stand up under an official attack. Quite a number of manufacturers believe they will have the right to make the statement on the label in some form guaranteeing that the food product complies with the federal and state law. They believe they may do this, using their own name as guarantor without running the risk of prosecution. But since the serial number is to be withdrawn there will, as a matter of course, be no serial number to use. One thing is certain, no legend will be permitted on the label that carries with it the slightest inference that the government is in any way behind the goods.

ILLINOIS MAKES AN EVAPORATED MILK STANDARD.

THE Illinois State Food Standard Commission held a very important meeting in the office of the Food Department in Chicago, May 11, to take up the question of establishing a standard for evaporated milk in the State of Illinois.

The following condensed milk concerns were represented: Bordens Condensed Milk Co., Dr. Cassius Way; Helvetia Milk Company, E. W. Barlow; Denmark Condensed Milk Co., J. F. Enz; Pacific Coast Condensed Milk Co., L. R. Herdenberg; Mohawk Condensed Milk Co., Frank Gebbie; Indiana Condensed Milk Co., W. T. Wilson; Libby, McNeil & Libby, Philip Larman; American Milk Co., Walter Page; The Oatman Condensed Milk Co., W. F. Oatman; Delavan Condensed Milk Co., H. M. Clark; The John Wilde Evaporated Milk Co., John T. Montgomery.

The meeting was called to order by Commissioner Matthews, who welcomed the members of this conference in the name of the great State of Illinois and expressed a desire to work in harmony with the manufacturers, asking their co-operation as they had his. He also stated that he would prefer to have his assistant, Mr. Newman, act for him, as he would be unable to give the entire afternoon to the hearing, as he had other matters that demanded his attention.

Those present besides Messrs. Mathews and Newman were Walter S. Haines and Mr. Thomas P. Sullivan, Secretary of the Commission.

It was very evident as the hearing moved along that the milk manufacturers were thoroughly in earnest and also unanimous in their opinions that a just and fair standard to consumer and manufacturer alike should be based upon 7.8 butter fat and 25.5 solids, other than fats. The only exception to this proposition was made by Dr. Clark, representing the Delavan Condensed Milk Company, who liked the standard adopted by the State of Michigan, a standard by which he said any housewife can intelligently know what she is buying; in other words, every packer of milk has to state on their labels what proportion of water it takes to produce a fluid milk. The average

sewife does not know what butter fat and solids
n, but if she had to take a certain part of canned
s in order to get a fluid milk it would be intelligent
er.

his expression of Dr. Clark's seemed to have no
port from the other manufacturers or sympathetic
onse of any kind and it was, as a matter of fact,
considered any further.

The meeting finally adjourned and the best of
its prevailed, and the commission promised to con-
r a standard for evaporated milk at an early date,
h they did at the meeting of May 27 when they
d unanimously that on and after July 1, 1914, all
porated milk manufactured in the State of Illi-
must contain 7.8 butter fat and 25.5 total solids.
r than fat.

TREAT ALL ALIKE.

ROCEEDING upon the theory that farmers and
wage-workers are producers, our federal legisla-
tors are showing a disposition to exempt these
es from the operation of the proposed anti-trust

ise men who are certain that the favored classes
rred to are not the only producing groups in the
cannot help but feel that there are other reasons
putting these people outside the pale of the law.
ce the men who are to be held to a strict account-
for their acts under the law are uneasy and in an
ertain frame of mind about the working of the
osed law. They cannot see why one set of men
ld be immune from a law that promises to send
to prison. Certain men, it is proposed, may
nit offenses and escape the legal consequences
eir acts, while other men are to be punished for
ame offense, on the flimsy plea that they are pro-
rs, and the further implied theory that all other
ps of business men are merely a set of leeches,
necessary to the well-being of the general public.

hen the last unkind word has been said against
D. Rockefeller and his class, the fact will still
in that these men have been important producers.
have made it possible for the consumer to buy
nd its products at a low price.

e coal barons are producers. So are, in fact,
great group of manufacturers who are taking
ucts that were formerly wasted and preparing
for consumption.

we are to have only farmers and those who work
their hands we will degenerate into a people
better than aborigines.

ti-trust laws may be necessary. That is, laws
biting one set of people from trade conspiracies
will do injury to other groups. But no set of
e should be exempt from the operation of the
In fact, a law that does not treat all people
is badly conceived and should have no place in
tatute books.

e evils of trade combinations, made by men of
mental force and easy conscience, are not diffi-
to recognize. And it should not be a very hard
r to make and enforce laws against trade evils,
nspiracies of any kind that are harmful.

mbinations and so-called commercial conspiracies
ften productive of much good, as well as of some

evil. Lost motion is conserved on the one hand for
the benefit of the consumer, while on the other hand
much harm is often done in bringing about such good
results.

It matters not what the nature of their business
may be, men should be permitted to progress. In
moving forward they should be compelled to respect
the rights of others. Such a rule should apply to the
farmer, the artisan, the laborer and the manufacturer.

Any anti-trust law that does not proceed from such
an equitable basis will be a failure.

SAVING LOST MOTION.

WASTE mental and physical energy has been the
concern of progressive business men for years.

Those who have been able to take up the waste
slack and lost motion have put just that much of a
handicap on their less thoughtful competitors. One set
of business men have scored failures largely through
lost motion. Another set have been able to show the
value of this waste in their profit column.

The same idea is taking hold of some of our most
progressive food officials. They are not content to do
the destructive work of mere policemen, but are look-
ing about for means of saving to the consumer
much of the waste that has been going on for years.

When corn was so cheap that it was used on the
prairies for fuel, and meat and other food products
were sold at a very low price, the loss of a little corn or
other grain, vegetables and meat did not give us
much concern. We had a plenty and some to spare.
The best cuts of meat were to be found on the laborers
table. The best of everything, in fact was all that the
market man cared to handle. The cheap cuts and the
fruit and vegetables that did not rank with the best as
to quality went for a song, and of the best, much
went to waste.

Now that it is no longer possible for all men in
America to live on the fat of the land and throw some
of this away, thoughtful men are looking about for
economical ways of saving good food that we have
got into the habit of wasting.

The big meat packers, through the aid of their
chemists and other experts have had the habit for
some time of saving what had formerly gone to waste.
They put into cans much good meat product that is
of little value when used in any other way. Other
things, known as by-products find their way now into
commerce and serve a useful purpose, whereas these
very by-products were formerly of no practical value.
They were indeed waste products.

Our growing population which keeps gaining on our
productive power makes it imperative that we not only
practice intensive cultivation but that we conserve the
product when it has been produced.

The canners, of course, are taking up a great deal of
what formerly was waste from the fruit and vegetable
field. The surplus fruit and vegetables instead of
going to waste are put into cans at a comparatively
small cost, and reach the consumer at such seasons of
the year when fresh fruits and vegetables are scarce
and costly.

There is much food stuff going to waste, and the
food commissioners who will find a way to make good
use of this will deserve the good will of the people.

PROF. IRA REMSEN AWARDED GIBBS' MEDAL.

AN auspicious meeting of the Chicago section of the American Chemical Society was held at the Sherman House, Chicago, May 15th, the affair partaking of the nature of a banquet. The event, which conspicuously marked the occasion, was the awarding of the Williard Gibbs' Medal to Dr. Ira Remsen, A. B., M. D., Ph. D., LL.D., D. C. L. Dr. Remsen is a chemist of international note, was for many years president of Johns Hopkins University, and was one of the consulting Board of Chemists appointed by President Roosevelt to make investigations of certain vexatious matters which came before the Bureau of Chemistry for decision under the Pure Food Law.

The Walter Gibbs Medal which was endowed by Wm. A. Converse of Chicago, is a tribute to research work in chemistry and is a decoration greatly coveted by scientists. Dr. Remsen is the third American who has received a Gibbs Medal and none wears it with greater distinction.

Presentation was made by Prof. Wm. A. Noyes, A. M., Ph. D., LL. D., Professor of Chemistry, University of Illinois, and Editor of the Journal of the American Chemical Society.

Dr. Remsen's address on the "Development of Chemical Research In America" was given in authoritative and entertaining style.

Other speakers at the banquet were Harry McCormack, M. S., Chairman Chicago Section of the American Chemical Society, A. W. Harris, President N. W. University, and Geo. E. Vincent, President of the University of Minnesota, all of whom paid generous tribute to the ability of the distinguished guest of the occasion, Dr. Remsen.

PROMOTING A COFFEE WEEK.

WE got the habit of specializing many years ago and we have cultivated and developed this habit to a degree unthought of by a preceding generation. We are using this idea now in promoting sales of some particular variety of food, setting apart a period of one week in which all direct and collateral forces are worked to the end that the consumer will be educated and buy more of the particular class of goods that are being boomed.

Now we are to have a coffee week, during which time all people from roasters to retailers engaged in the coffee business are expected to use all the art and science of salesmanship at their command to attract the attention of consumers to the virtues of coffee.

The National Coffee Roasters Association are believed to be behind the movement, and through a special committee are pushing the work all along the coffee selling line. The week set apart for the booming of coffee is October 19-24. During this period elaborate advertising displays will be made all over the country; special articles will be published on coffee, and coffee talk will be in the air in every part of the land.

This concerted effort at pushing coffee, it is expected will result in a better demand for coffee.

In other lines of food it has been found advantageous to have a special week for extraordinary sales efforts. The coffee dealers believe the specializing plan will work well for them, judging by the success that came to other dealers who had a week of concentrated effort.

KILL THE ROOSTER.

FOR some time past the rooster has been going of favor with food officials who would have egg supply of their state improved. We used to think that the rooster was a prime necessity to the production of eggs. But we have learned better. We understand now that the egg of the hen is in no way improved by the efforts of the fertilizing rooster; the contrary we have come to understand that the fertilized egg is more likely to go wrong than one that a rooster had nothing to do with. Food officials are now urging the people to get unfertilized eggs and eat them as they would the unfertilized shad row of commerce.

Commissioner Strode of Ohio is out with a proclamation against the rooster, in which he urges slaughter day for all roosters on the egg farms. He asks that June 6 be recognized throughout the state of Ohio as rooster day, and that on this date all roosters let the axe fall upon the neck of any rooster about the poultry yard.

This will no doubt give the people of Ohio more good eggs than they would get if the rooster were permitted to remain and exercise the prerogatives of a parent. It's pretty tough on the rooster who has fathered a lot of chicks but it is better for the people that he should die. The cry has gone up for more unfertilized eggs from many quarters, where it has been substantially proven that they keep better and eat as well.

FORCE OF HABIT.

COFFEE experts are agreed that the Porto Rican product is of a very high character, yet notwithstanding the fact that this island is an American possession, the people of this country refuse to take kindly to the Porto Rican coffee.

Clearly this is so not because the coffee lacks quality but rather because we have not become accustomed to its peculiar flavor. Foreigners who have been drinking it for years give this coffee preference over coffee that finds favor with us. And they are willing to pay a higher price for this product which we of America look down upon.

We have simply got the habit of preferring a Porto Rican coffee, and it is going to take us some time to change our notion.

During the past year the coffee of Porto Rico has been greatly improved as a result of better cultivation and better methods of handling. Still Americans shy at what might be termed their own product, leaving the foreigners to get the benefit of this coffee quality.

Of the coffee exported from the island last year more than \$8,000,000 worth went to the foreign markets while the United States took a little more than \$100,000 worth.

The taste of American coffee drinkers, no doubt, will have to be changed before we will consume a fair proportion of our own coffee.

The article on Drug and Sanitary Inspection by George B. Taylor, B. S., state analyst of Louisiana, was unavoidably crowded out of this issue. In the next issue the story will be continued.

Dr. Beverly Thomas Galloway Resigns

DR. BEVERLEY THOMAS GALLOWAY, the newly elected Dean and Director of the New York State College of Agriculture at Cornell University, has spent his entire life in the service of agriculture. He began his career as instructor in the Missouri State College, was for many years the head of the Bureau of Plant Industry in the United States Department of Agriculture, and since 1913 has been Assistant Secretary of Agriculture. In this capacity he has done much to further co-operation between the department and the various agricultural colleges and state experiment stations throughout the country, with which he has always shown himself to be in hearty sympathy.



DR. BEVERLEY THOMAS GALLOWAY.

Dr. Galloway was born in 1863 in Millersburg, Missouri, his father, a native of Kentucky, having been one of the pioneer settlers in the state. After the Civil war the Galloways moved to Columbia, the site of the Missouri State University. There Dr. Galloway's career may be said to have begun in 1880, for in that year he secured work in the horticultural grounds of the Agricultural College. He had previously completed the usual school course and had also done something toward qualifying as a pharmacist.

Young Galloway soon attracted the attention of Samuel M. Tracy, then Professor of Botany. Through his assistance he was enabled to finish his education in

the University, graduating from the College of Agriculture after four years of study. He was then employed in collecting agricultural and botanical material for the New Orleans Exposition in the winter of 1884-1885. After the Exposition was over, he returned to Columbia to assume charge of the general greenhouse work.

The young scientist was now fairly launched on his chosen career. He began at once to specialize in plant pathology—a subject in which only one or two institutions in the United States were then doing any work—to read papers on this subject at state horticultural meetings, and to publish in the newspapers practical advice on how to prevent plant diseases. An offer of the place of assistant botanist in the United States Department of Agriculture, he declined because it would have interfered with these investigations, but when Congress appropriated a small sum of money in 1877 for the study of plant diseases, he became assistant pathologist in the Section of Mycology. Dr. Galloway found four or five men working with a total appropriation of \$6,000 or \$7,000. When he steps out of the department, he will leave behind him, in the Bureau of Plant Industry, nearly 3,000 men engaged in work that costs nearly \$3,000,000 a year. This transformation is the monument Dr. Galloway has erected to himself in twenty-seven years of labor.

The year following his entrance into the department, Dr. Galloway became chief of the section. He at once reorganized the work, paying particular attention to field demonstrations and experiments in co-operation with the State Experiment Stations which were being organized at this time. In this way, the section of plant pathology was rapidly developed.

In 1900 another reorganization on a larger scale, in which Dr. Galloway also took an important part, was effected. Largely through his instrumentality the four great bureaus of Plant Industry, Forestry, Chemistry and Soils were formed, and these, with the Bureau of Animal Industry, are at the bottom of the department's work today. As Chief of the Bureau of Plant Industry, Dr. Galloway extended and developed the field of its activities, proving himself as energetic an administrator as he was an enthusiastic scientist. While he encouraged team work in every way, however, he allowed the greater freedom to his subordinates, and in consequence the bureau expanded with remarkable vitality.

In 1913 Dr. Galloway became assistant secretary of agriculture, an appointment which was recognized at the time as entirely devoid of political significance. Here he again showed his sympathy with the agricultural colleges and state experiment stations. Much of his time, indeed, has of late been devoted to bringing the department into closer touch with them. He is also a strong advocate of instruction by practical demonstration whenever possible, of going directly to the farmer with the information he needs. These principles have been embodied in the Smith-Lever Act, the passage of which is a distinct epoch in agricultural education. It provides liberally for the distribution by lectures, demonstrations, and other practical means, of the information gathered by the department, colleges and stations, and is thus a pronounced triumph for the cause Dr. Galloway has supported so long.

Official Program for Eighteenth Annual Convention of Association of American Dairy, Food and Drug Officials

To Be Held at Portland, Maine, July 13-14-15-16-17, 1914.

As several of the Commissioners indicated a desire to journey together from Chicago to Portland, Maine, for the convention, President Wallace requested Assistant Commissioner John B. Newman to look up various routes and rates and to map out an itinerary that would take in a lake trip, Niagara Falls and the



JOHN B. NEWMAN, ASSISTANT ILLINOIS STATE FOOD COMMISSIONER.

Thousand Islands. Mr. Newman is getting this data together fast and will address a communication and enclose folders to all of the state officials within the next few days.

The different railroad companies have what are known as summer excursion rates from July 1 to October 1 with liberal stop-over privileges. There is one rate for a thirty day trip and another for sixty days and still another for ninety days—the thirty days is the cheapest of the three. These trips may be made up in what are known as "circle tours," and, of course, they may be made in a dozen different ways, or the delegates could go to Portland, Maine, together and return in various ways, as you will see by the circular which will reach you within a few days. The route indicated below appealed most to Mr. Newman as it would give those going pleasant rides on boats rather than smoky and stuffy trains, and is a very scenic route.

Leave Chicago Wednesday, July 8, 9:30 a. m., arriving in Detroit at 3:55 p. m. Board the boat at Detroit, which leaves at 5 p. m., giving you a beautiful afternoon ride down the river and an all night ride on Lake Erie, arriving at Buffalo the morning of Thursday, July 9, at 9 o'clock and at Niagara Falls at 10 a. m. Take what is known as the Niagara Belt Line about Niagara Falls, viewing the Falls from all points of interest, going down the river to Lewiston on one side and coming up the river by the shore level on the other side, passing the Whirlpool Rapids, and up by the Gorge and Rapids to the city, then retracing our steps to Lewiston where we board a boat for a trip across Lake Ontario to Toronto in time to take the sightseeing cars for a couple of hours around Toronto.

Take a night train for Kingston, leaving the sleeping car in time to board one of the boats of the Richlieu & Ontario Co., Friday morning, July 10, which takes you through the Thousand Islands and the Rapids, landing you in Montreal the same evening, giving you the entire day boating through the beautiful Thousand Islands, spending Saturday, July 11, in Montreal, leaving Sunday morning, July 12, at 9 o'clock, gives day light ride through the White Mountains and the beautiful summer resorts of that part of New England arriving at Portland, Maine, Sunday evening, July 13.

If it is desirable they can cut out the day in Montreal and leave Saturday morning, arriving in Portland Saturday evening. Returning from Portland, Maine, one can come home various ways—for instance, rail to Boston; the Fall Rivers Steamship Line from Boston to New York City; boat ride up the Hudson to Albany and the train West; or going on up from Albany through Lake George and Lake Champlain via Saratoga and Ft. Ticonderoga back to Montreal and West by boat or rail; or from New York City taking the train West via Washington; or from New York City on the Old Dominion Lines boat to Norfolk, giving you a short trip on the ocean; from Norfolk taking the boat up the Potomac River to Washington, D. C. and West by rail.

This will be a very delightful trip. The time spent on the boats undoubtedly will be more enjoyable than time spent on the train. The trip through the Thousand Islands is one of the most beautiful trips in Eastern America. The Commissioners will have plenty of chance to visit on the boats and will be rested before they reach the convention, and unless you expect to return by Montreal, you certainly should take a day off and see Montreal. Those who wish to spend the day in Detroit can leave Chicago the evening before at 11:30 arriving in Detroit in the morning and have a day in Detroit.

You will notice this schedule shows that you take the train from Toronto to Kingston. You board the boat for the trip through the Thousand Islands early in the morning. This boat leaves Toronto the evening before at 6 o'clock. The connection from Niagara Falls to Toronto will be close. We do not want to be tied down to a 6 o'clock connection, and again, the added fare through the Thousand Islands from Toronto

ronto to Montreal is \$8, meals and berth excluded. Getting on the boat at Kingston the extra fare is \$4.50, a saving of \$3.50, for your railroad fare is already included in the ticket. The berth on the sleeper would be the same price as the berth on the boat. So this gives you more time in Toronto and saves \$3.50. Please note the fact that meals and berths on all boats are extra, with the exception of the Old Dominion trip from New York City to Norfolk. On that trip the fare includes meals and berth on the boat.

The cost of a ticket going as above described depends entirely upon the way you return. As for illustration, the above circle tour to Portland, rail or boat, to New York City returning by rail to Chicago would be \$38.30, plus the \$4.50, the extra fare through the Thousand Islands, which would make it \$42.80. This trip to Portland, boat or rail to New York City, then the Old Dominion Line to Norfolk, Va., and the boat up the Potomac River to Washington, D. C., and rail back to Chicago would be \$43.90, plus the Thousand Islands extra at \$4.50, making it \$48.40; or going from Chicago to Portland and to Boston, returning to Portland and Montreal the same way as we go back to Chicago would be \$35.20 plus the \$4.50 for the Thousand Islands trip, making it \$39.70.

The route described above has been chosen because it seems to meet the demands of those who wish to take a lake trip and get the most on the way, Niagara Falls, the Thousand Islands, etc. Those who cannot leave so early could leave Wednesday evening and pick up the party Thursday morning at Buffalo journeying the rest of the way together.

The pamphlet that Mr. Newman will send to each person interested will show the various routes that may be chosen going and coming. Even those who do not care to meet in Chicago and go as a party will receive literature from Mr. Newman that will tell them how they can get to Portland and back home by various routes.

And Mr. Newman earnestly requests everyone going to Portland, whether going with the party or not, to call upon him for any and all information about the trip. He will be very glad to make reservations and assist in any way possible. If any of the people wish to go up into Canada or any other place in the East after the convention they can undoubtedly arrange to do that on a circle ticket, which will not only give them the benefit of the summer rates but save them bothering with tickets at different places along the line.

FOR THE BENEFIT OF ALL.

The program for the eighteenth annual convention of the Association of American Dairy, Food and Drug Officials is a promising one in every respect. Speeches relative to the most interesting phases of the food situation will be given by men who have acquired a national reputation on the strength of their ability and integrity. It is highly commendable that in carrying out the program a day is set apart as manufacturers' day, thus offering the manufacturers an opportunity for fully stating their views. It is reasonable to believe that if food control officials and manufacturers met more frequently under similar conditions, being equally inclined towards mutual understanding and mutual justice, the maintenance of the pure food law by co-operation would be a simple matter and would lose some of its violent character without the law losing one iota of its efficiency.

The committee is to be congratulated upon its arrangement of speakers as well as the nature of the various themes to be discussed.

The executive committee of the Association of American Dairy, Food and Drug Officials decided that July 13-17, inclusive, would be the most desirable and convenient date for the annual meeting of the association. The secretary notified Dr. Charles D. Woods, of Maine, of the action of the committee, and was informed by Dr. Woods that it would be impossible for the association to get accommodations at the Mt. Kineo House, the place selected for the meeting by the association, that late in the season.

The committee, feeling that it was the sense of the association that the meeting should be held in July or August, and not as early as the middle of June, decided to accept an invitation from the Portland Board of Trade to meet in that city July 13-17, inclusive.



PRESIDENT JAMES H. WALLIS.

To be held in Portland, Maine, July 13-18, 1914.
MONDAY, JULY 13, 1914.

9 A. M.

Convention called to order by President.

Address of Welcome on Behalf of State—His Excellency, Hon. William T. Haines, Governor of Maine.

Address of Welcome in Behalf of City—Hon. Oakley C. Curtis, Mayor Portland.

Address of Welcome in Behalf of Portland Board of Trade—Hon. Frank M. Lowe, President.

Response to Addresses of Welcome, in Behalf of National Association—Hon. S. V. Strode, Commissioner of Ohio.

2 P. M.

1—President's Annual Address, Hon. James H. Wallis, Commissioner of Idaho.

2—Annual Report of Secretary, Hon. W. M. Allen, Commissioner of North Carolina.

3—Annual Report of Treasurer, Hon. H. E. Potter, Commissioner of Connecticut.

4—Reports of Standing Committees:

(a) Executive Committee, Dr. W. M. Allen.

(b) Committee on Co-operation, Dr. S. J. Crumbine.

(c) Committee on Bacteriological Standards, Dr. J. S. Abbott.

5—Reports of Special Committees:

(a) Joint Committee on Food Standards, Dr. C. L. Alsberg.

(b) Amendments to National Law, Hon. Geo. L. Flanders.

(c) Substandardization of Drugs and Tolerance Limits in Drug Adulterations, Dr. Charles Caspari, Jr.

(d) Memorializing Congress on Standards, Hon. Geo. L. Flanders.

(e) National Dairy Show, Dr. H. E. Barnard.

(f) Drug, Chemical and Food Exposition, Dr. R. B. Fitz-Randolph.

6—Appointment of Committees:

(a) Credentials.

(b) Auditing.

(c) Resolutions.

TUESDAY, JULY 14, 1914.

9 A. M.

1—General Standards, Dr. Carl L. Alsberg.

Discussion—Hon. J. Q. Emery, of Wisconsin; Hon. J. D. Mickle, of Oregon.

2—Misuse and Abuse of Coined, Proprietary and Distinctive Names, Dr. Lucius P. Brown, of Tennessee.

Discussion—Dr. W. M. Allen, of North Carolina; Hon. Herman C. Lythgoe, of Massachusetts.

3—Most Efficient Methods, Including Building and Cost of Meat Inspection for Small Communities, Hon. R. M. Allen, of Kentucky.

Discussion—Hon. Maurice Groshon, of Wyoming; Dr. J. C. Mahr, of Oklahoma.

4—Regulation of Food Supplied Hotels, with Particular Reference to Sanitary Conditions Involved in Its Preparation, Dr. G. G. Frary, of South Dakota.

Discussion—Hon. C. E. Harman, of Nebraska; Hon. Herbert F. Potter, of Connecticut.

2 P. M.

(Section A: State Food and Dairy Executives).

Ten minutes for each paper and fifty minutes for discussion.

Annual Address of President.

Report of Secretary.

Report of Treasurer.

1—Publication vs. Prosecutions as a Means of Abating Food Trade Evils, Hon. E. F. Ladd, of North Dakota.

Discussion.

2—Round Table: The Supreme Court Decision in the Bleached Flour Case. Its Bearings Upon the Forms of State Legislation, Hon. H. E. Barnard, of Indiana.

Discussion.

3—The Value of Specialized Counsel in Food Law Prosecutions, Hon. George L. Flanders, of New York.

Discussion.

WEDNESDAY, JULY 15, 1914.

9 A. M.

1—"Swells" and "Springers," Dr. W. D. Bigelow,

Chief Chemist, National Canner's Laboratory, Washington, D. C.

(1) What constitutes a "Swell" or "Springer?"

(2) What are the conditions of the product or of the process which might be a causative agent in producing swells or springers?

(3) Where should the line be drawn as to what class of foods coming into this category might be safely and properly used as food products?

(a) Should canned fruits or vegetables belonging to the class of "swells" be permitted to be processed, or to be sold to be worked up into other products, such as the making of pie stock, or working up into butters, jams or marmalades?

(b) How may such class of fruits that have been worked up into various by-products be detected by commissioners?

(c) Does the presence of tin in excessive quantities denote that such products are made from swelled canned goods?

Discussion—Dr. M. E. Jaffa, of California; Hon. Wm. D. Saunders, of Virginia.

2—Practical Methods in the Analysis of Food Products, Dr. Herman Harms, of Utah.

Discussion—Dr. Geo. B. Taylor, of Louisiana; Dr. W. F. Hand, of Mississippi.

3—Egg Albumen in Baking Powder, Dr. E. F. Ladd, of North Dakota.

Discussion—Dr. J. S. Abbott, of the Department of Agriculture; Dr. F. H. Fricke, of Missouri.

4—False Advertising, Dr. S. J. Crumbine, of Kansas.

Discussion—Dr. R. M. Allen, of Kentucky.

2 P. M.

(Section A: State Food and Dairy Executives).

Ten minutes for each paper and fifty minutes for discussion.

1—Round Table: Inspectors or Special Agents. Their Appointment, Qualifications, Pay and Expense Allowance, Hon. J. Q. Emery, of Wisconsin.

Discussion.

2—What is Done With the Cases Declared Illegal or Not Passed? Why Should Not the Annual Reports State the Facts? Hon. James H. Wallis, of Idaho.

Discussion.

3—What Should be the Food Commissioner's Policy Relative to Passing Upon Labels and Giving Interpretations of the Law in His Correspondence? Hon. Lucius P. Brown, of Tennessee.

Discussion.

THURSDAY, JULY 16, 1914.

9 A. M.

1—Enforcement of Sanitary Laws and Regulations, With Model Law, Dr. Oscar Dowling, of Louisiana.

Discussion—Prof. E. H. S. Bailey, of Kansas; Hon. W. B. Barney, of Iowa.

2—Uniformity of State Laws and Federal Regulation Regarding Habit-forming Drugs With Model Law, Dr. Chas. Caspari, Jr., of Maryland.

Discussion—Dr. A. E. Frantz, of Delaware; Dr. R. B. Fitz-Randolph, of New Jersey.

3—Uniformity of State Laws to Regulate the Production and Sale of Eggs With Model Law, Dr. J. S. Abbott, of Texas.

Discussion—Hon. W. B. Barney, of Iowa; Dr. Sanford C. Dinsmore, of Nevada.

4—Inspection of Water Supplies, Dr. Chas. D. Howard, of New Hampshire.

Discussion—Dr. J. P. Street, Connecticut; Dr. R. E. Rose, of Florida.

2 P. M.

(Section A: State Food and Dairy Executives).

Ten minutes for each paper and fifty minutes for discussion.

1—The Value of Specific Laws Dealing With Special Commodities, Hon. S. V. Strode, of Ohio.

Discussion.

2—Need for a National Cold Storage Act, Dr. R. B. Fitz-Randolph, of New Jersey.

Discussion.

3—Round Table: Methods of Conducting the Commissioner's Office Work, Hon. Joel G. Winkjer, of Minnesota.

Discussion.

Election of Officers.

Other Sectional Business.

FRIDAY, JULY 17, 1914.

Manufacturer's Day.

(Papers are not to exceed fifteen minutes each, and duplicate copies are to be furnished the Presiding Officer).

9 A. M.

1—"What Should be the Relation Between Food Manufacturers and Food Commissioners?" Louis Runkel, American Specialty Manufacturers' Association; H. W. Hoops, National Confectioners' Association; W. M. McCormick, Flavoring Extract Manufacturers' Association; Dr. T. B. Wagner, Corn Products Company.

2—"The Advisability of Labeling Canned Foods With the Date When Such Foods Were Packed," Arthur Meeker, Armour & Company; Ex-Governor B. M. Fernald of Maine.

3—"Food Sanitation from the Manufacturer's Standpoint," F. E. Barbour, Beech-Nut Packing Company; S. Fredrick Taylor, President Borden Condensed Milk Company.

2 P. M.

1—"Self-Interests a Much Greater Regulator of Foods Than Any Pure Food Law," A. P. Husband, National Millers' Federation.

2—"Effect of Pure Food Laws on High Cost of Living," Oscar McGlasson, President National Wholesale Grocers' Association.

3—"How Food Officials Can Make Our Grocery Stores More Sanitary," W. G. Sherer, Sherer-Gillett Company.

4—"Should Food Standards Exclude or Encourage Cheap but Wholesome Substitutes?" Thos. P. Sullivan, Illinois Food Standards Commission.

5—"How Food Legislation Has Helped the Retailer," John A. Green, Secretary of National Retail Grocers' Association.

SATURDAY, JULY 18, 1914.

9 A. M.

1—A Food Law Weakness: "The Commissioner," Hon. J. W. Helme, of Michigan.

(a) Short Period of Their Appointment.

(b) Term Should be Permanent.

(c) Should be Removed From Politics.

(d) Should Have Knowledge of the Work.

Discussion—Hon. James Foust, of Pennsylvania; Dr. E. F. Ladd, of North Dakota.

2—Value and Methods of Conducting So-called

Pure Food Shows, Hon. Joel G. Winkjer, of Minnesota.

Discussion—Dr. Oscar Dowling, of Louisiana; Dr. M. E. Jaffa, of California.

3—Sanitation of Soda Water Fountains, Dr. Chas. D. Woods, of Maine.

Discussion—Dr. R. E. Stallings, of Georgia; Dr. Robt. Wilson, Jr., of South Carolina.

4—Relation of the Food Department to the Municipal Milk Supply, Hon. John B. Newman, of Illinois.

Discussion—Dr. Mark W. Richardson, of Massachusetts; Dr. W. C. Woodward, Washington, D. C.

2 P. M.

1—Editing Questions and Answers, Dr. S. J. Crumbine, of Kansas.

2—Advisability of Special Oleomargarine Legislation, Hon. James Foust, of Pennsylvania.

Discussion—Hon. George L. Flanders, of New York; Hon. Frank A. Jackson, of Rhode Island.

3—Development of Food Industries, Dr. H. E. Barnard, of Indiana.

Discussion—Dr. R. B. Fitz-Randolph, of New Jersey; Hon. W. Scott Mathews, of Illinois.

4—Ice Cream Standards, Hon. W. B. Barney, of Iowa.

(a) Necessity for Standards.

(b) What is a Reasonable Standard?

(c) Feasibility of Milk Fat Standard.

(d) Should "fillers" be permitted?

(e) What "filler" is least objectionable and in what quantity?

Discussion—Hon. Joel G. Winkjer, of Minnesota; Dr. F. W. Cogswell, of Montana.

5—Report of Resolutions Committee.

6—Election of Officers.

SECTION B.

ASSOCIATION OF AMERICAN DAIRY, FOOD AND DRUG OFFICIALS.

President, J. R. Chittick, Iowa.

Vice-President, B. B. Ross, Alabama.

Secretary, F. L. Shannon, Michigan.

PROGRAM.

TUESDAY, JULY 14, 1914, 2 P. M.

1. Address of President.

2. Egg Albumen in Baking Powder, H. L. Jackson, Boise, Idaho.

3. Heavy Metals in Baking Powder. Roe E. Remington, Agricultural College, North Dakota.

Part One—Arsenic.

Part Two—Tin.

4. The Influence of the Commercial Chemist in the Control of Commodities. A. V. H. Morey, Chicago, Ill.

5. The Examination of Essential Oils. E. M. Chase, Washington, D. C.

6. Chemical Control of Paint, Linseed Oil and Turpentine. W. S. Frisbie, Des Moines, Iowa.

7. Analysis of Commercial Asafœtida. Adolph Ziefle, Agricultural College, North Dakota.

WEDNESDAY, JULY 15, 1914, 2 P. M.

8. A Study of Variations in Weights and Measures in Connection with the Net Weight Amendment to the

Food and Drugs Act. L. M. Tolman and W. E. Hill-
 yer, Washington, D. C.

9. The Sweating of Oranges. E. M. Chase, Wash-
 ington, D. C.

10. The Detection of the Coating and Polishing of
 Rice. J. E. Mastin, Agricultural College, Mississippi.

11. Clean Milk and Its Production. C. P. Moat,
 Burlington, Vt.

12. Food Products from Soy Beans. H. M.
 Loomis, Washington, D. C.

13. Fertilizer Control Work. R. E. Stallings, At-
 lanta, Ga.

14. The Preparation of Food and Drug Exhibits
 for Educational Purposes. F. L. Shannon, Lansing,
 Mich.



PRESIDENT J. R. CHITTICK.

THURSDAY, JULY 16, 1914, 2 P. M.

15. Wrapping of Bread, Its Chemical Composition,
 Bacterial Content and Flora of the Loaf. H. E. Barn-
 ard, Indianapolis, Ind.

16. State Drug Inspection. A. R. Todd, Lansing,
 Mich.

17. The Detection of Adulterants in Cocoa Butter
 with Special Reference to the Quantitative Determina-
 tion of Cocconut Oil. H. S. Bailey, Washington, D. C.

18. When Is An Orange Mature and Wholesome?
 R. E. Rose, Tallahassee, Fla.

19. The Bacteriological Examination of Foods.
 C. E. Gabel, Chicago.

20. Round Table—General Discussion.

ELECTION OF OFFICERS.

Miscellaneous or Unfinished Business.

ABOLITION OF GUARANTY LEGEND POST- PONED.

Revised Food Inspection Decision Allows Manufacturers Additional Year in Which to Exhaust Stock of Labels.

It was announced today that it had been decided to
 postpone the effective date of Food Inspection De-
 cision 153, which, in substance, abolishes, after May
 1, 1915, the present guaranty legend on food and
 drugs.

This legend, now in general use by manufacturers,
 is "Guaranteed by (name of guarantor) under the
 Food and Drugs Act." The Secretaries of the Treas-
 ury, Agriculture and Commerce have found it to be
 misleading and deceptive. Many people have been
 induced to believe that all articles labeled with the
 legend have been examined and approved by the Gov-
 ernment. The facts are that putting the legend on
 labels by manufacturers is entirely voluntary and that
 the Government never guarantees the wholesomeness
 or purity of food or drug products.

It appears that, acting in accordance with the regu-
 lation now in force, which permits the legend, many
 manufacturers have supplied themselves with large
 stocks of labels which can not be used up by May 1,
 1915. The result is that if the regulation, as amended
 by Food Inspection Decision 153, should go into ef-
 fect May 1, 1915, large losses would accrue to citizens
 who have expended their money for labels in good
 faith and in an effort to comply with existing regu-
 lations.

To meet this situation the effective date of the
 amendment to the regulation will be postponed until
 May 1, 1916, and as to products packed and labeled
 prior to May 1, 1916, in compliance with law and with
 the present regulations, it will be postponed until No-
 vember 1, 1916. Meanwhile, manufacturers may, and
 doubtless many will, label their goods in compliance
 with the new regulations.

The decision is as follows:

United States Department of Agriculture

FOOD INSPECTION DECISION NO. 155.

Changing effective date of Food Inspection De-
 cision No. 153, which amends Regulation 9, relating
 to guaranties by wholesalers, jobbers, manufacturers
 and other parties residing in the United States to pro-
 tect dealers from prosecution.

The effective date of Food Inspection Decision No.
 153, issued May 5, 1914, is hereby postponed until
 May 1, 1916; provided that as to products packed and
 labeled prior to May 1, 1916, in accordance with law
 and with the regulations in force prior to May 5, 1914,
 it shall become effective November 1, 1916; and pro-
 vided, further, that compliance with the terms of Reg-
 ulation 9 of the Rules and Regulations for the En-
 forcement of the Food and Drugs Act as amended by
 Food Inspection Decision No. 153 will be permitted
 at any time after the date of this decision.

C. S. HAMLIN, Acting Secretary of the Treasury.

D. F. HOUSTON, Secretary of Agriculture.

WM. C. REDFIELD, Secretary of Commerce.

Washington, D. C., May 29, 1914.

The Albumin Situation

Washington, D. C., May 26, 1914.

Editor, American Food Journal:

The efforts of the Food Commissioners to compel honesty in the sale of baking powder by prohibiting the sale of baking powder containing albumen are attracting national attention. At the meeting of the Inter-mountain Food Commissioners, held at Salt Lake City on April 8, the Food Commissioners whose law allowed such action passed a joint order prohibiting the sale of albumenized baking powder, while other Food Commissioners whose States did not have similar laws publicly regretted that their laws were so weak, and recommended an amendment by Congress to the National Pure Food Law, which would do away with albumen in baking powder and render impossible the deception of the people by the fraudulent water-glass test.

When I arrived in Washington to attend the National Convention of the Sealers of Weights and Measures, to which I was appointed a delegate by the governor of my state, I found that, acting upon the recommendation of the Food Commissioners, a bill had been introduced in Congress which, when enacted, will severely punish those who persist in dealing in baking powder containing albumen and also provides that after a certain time all such baking powder shall be seized and destroyed by the National Authorities. Upon investigation I found that this bill had been introduced after discussion of the matter with the National Pure Food Officials, and also that Dr. Wiley, the eminent pure food expert and former Chief of the U. S. Bureau of Chemistry was strongly opposed to the use of albumen in baking powder.

Further investigation at Washington convinced me that the bill prohibiting the use of albumen in baking powder and the consequent deception of the public by the fraudulent water-glass test, will eventually be enacted into law.

I also found that some weeks after the introduction of the bill above referred to there had also been introduced a measure to compel all manufacturers of baking powder to use albumen. When I first learned of this, it occasioned great indignation to think that an effort should be made to force honest manufacturers to debase their products with albumen, but after calling upon the members of Congress who have the whole subject in hand, I found that the latter bill was not taken seriously, but was considered by some as a joke, and by other members of Congress as an impertinent, defiant attitude on the part of the albumen users, who have been rendered desperate by the action of one progressive Food Commissioner after another in prohibiting the deception of the people of their States by the notorious water-glass test.

It occurs to me that the Food Commissioners and other readers of your paper will be interested in knowing the facts concerning the albumen situation in Washington. Accordingly, I enclose herewith the two bills which have been introduced in Congress. The first bill prohibits the use of albumen. It is the French Bill and probably will become the law. The second bill is the Broussard Bill which attempts to compel the use of albumen. It has no chance of passage and will not receive the support of any influential member of Congress. As one Congressman remarked to me, "The

second bill is merely an attempt to muddy the water. There is too much deception now without Congress passing laws compelling more deception as would be the case if the Broussard Bill was passed."

In justice to Mr. Broussard I must say he stated to me, in the presence of Congressman French, that he knew nothing of the merits of the bill which he introduced, that someone asked him if he would introduce it, and he assented with the distinct understanding that those responsible for it would have to take care of it, as he knew nothing about the matter, and had no time to give to it, and could not give it the least consideration. I told him that he had been imposed on, and explained the reason why Food Commissioners had taken the steps they had. Congressman French told Mr. Broussard that before introducing his measure, prohibiting the use of albumen, he had consulted Dr. C. L. Alsberg, Chief of the Bureau of Chemistry, and felt confident as a result of such conversation that he was doing the right thing. Very truly yours,

JAMES H. WALLIS,

President of the Association of American Dairy Food and Drug Officials, and Food Commissioner of Idaho.

THE FRENCH BILL.

H. R. 16024.

In the House of Representatives, April 25, 1914.

Mr. French introduced the following bill, which was referred to the Committee on Interstate and Foreign Commerce and ordered to be printed.

A BILL—To amend the pure food and drugs Act of June 30, 1906.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, that section seven of the Act approved June 30, 1906, and known as the food and drugs Act of June 30, 1906, is hereby amended to provide that all baking powder which contains albumin is adulterated; and after the passage of this Act any person who ships or delivers for shipment into interstate commerce any baking powder containing albumin shall be liable to all the fines and penalties, including imprisonment, as provided in said food and drugs Act for any violation of that Act; and on and after the passage of this Act all baking powders containing albumin shall be subject to seizure and destruction as provided in section ten of the said food and drugs Act.

THE BROUSSARD BILL.

H. R. 16349.

In the House of Representatives, May 7, 1914.

Mr. Broussard introduced the following bill, which was referred to the Committee on Interstate and Foreign Commerce and ordered to be printed.

A BILL—To recognize the value of certain ingredients in baking powder, establishing standards therein, and for other purposes.

Whereas it having been established that the addition to baking powders of a quantity of egg albumen enables the dealer therein or consumer thereof to determine, by a simple test, the approximate quantity of available carbon-dioxide gas present; and

Whereas such test will disclose to the consumer the relative strength of a baking powder containing such egg albumen; therefore,

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, that from and after July 1, 1914, it shall be unlawful to manufacture or sell within the District of Columbia or in any Territory of the United States, or to ship from one State or Territory to any other State or Territory or the District of Columbia, or to a foreign country, any baking powder which does not contain egg albumen as an ingredient thereof.

Sec. 2. That any person who shall violate any of the provisions of this Act shall, upon conviction thereof, be punished by a fine not exceeding \$500 for the first offense and upon conviction for each subsequent offense not exceeding \$1,000, or be imprisoned not exceeding one year, or by both, in the discretion of the court.

Sec. 3. That on and after July 1, 1914, all baking powders which are found by the Secretary of Agriculture not to contain egg albumen in sufficient quantity to enable the determination of the available quantity of carbon-dioxide gas present, as contemplated herein, shall be deemed to be below the official standard for baking powders, and shall be liable to be proceeded against in any district court of the United States within the district where the same is found and seized for confiscation by a process of libel for condemnation.

DR. LADD ENDORSES FRENCH BILL.

In a special bulletin recently issued, Dr. E. F. Ladd, Food Commissioner of North Dakota, comments upon the bill introduced in Congress by Representative French to prohibit the use of albumen in baking powder. Dr. Ladd says:

There has been considerable discussion of late with regard to the use of albumen in baking powder, and it is interesting to note that just recently there has been introduced before Congress a Bill which is intended to class any baking powder containing albumen as adulterated. The Bill further provides that any person who ships or delivers into interstate commerce a baking powder containing albumen, shall be liable to all the fines and imprisonment provided by said Act. If this Bill should be enacted into a law it would mean the end of the deceptive methods that have heretofore been practiced through the use of albumen in baking powders.

INJUNCTION BILLS FILED IN IDAHO AND OREGON.

The Crescent Baking Powder Company of Seattle has filed bills in the Federal Courts for Idaho and Oregon to restrain Food Commissioners Wallis and Mickle from enforcing their rulings forbidding sale of albumenized baking powders in those states. Both Commissioners are standing by their rulings, and promise a lively fight in the Federal Courts. It is reported that Dr. Wiley and Dr. Ladd and other National and State Officials will assist Commissioners Mickle and Wallis in their stand for honesty in the sale of baking powder.

STATE WINS TEXAS ALBUMEN FIGHT.

The fight of the Calumet Baking Powder Company to restrain the Food Commissioner of Texas from enforcing his order against the sale in the State of Texas of albumenized baking powder was brought to a sudden end in Austin on May 18. The Attorney General moved in the Federal Court that the bill filed by the Calumet Baking Powder Company be dismissed and Federal Judge Maxey granted the motion.

It is understood that Food Commissioner Yates takes the same strong stand against albumenized baking

powder which was taken by his predecessor in office, the Hon. J. S. Abbott, who is now holding a pre-eminent position in the U. S. Pure Food Service. Taking Commissioner Yates' position into account, it is apparent that the sale of albumenized baking powders will not be permitted in the State of Texas.

MONTANA LAW DEFECTIVE.

When the Intermountain Food Commissioners at their meeting in Salt Lake City on April 8 issued their order denouncing albumen and forbidding the sale of albumenized baking powder, Dr. Cogswell of Montana was among the Commissioners who signed the order and forbade the sale of albumenized baking powder in Montana. However, Dr. Cogswell has now been advised that his law is not as broad as the laws of other states and that he cannot uphold his ruling. The following statement from Dr. Cogswell explains his present position:

"Relative to the ruling of the Food Commissioners of Utah, Idaho, Oregon and Montana at a meeting recently held in Salt Lake City, relative to prohibiting the sale of baking powder containing albumen, in the states mentioned, beg to state that the Attorney General of this state advises that section 17 of our Food and Drugs Act will not allow us to enforce this ruling in the state of Montana."

NEW HAMPSHIRE FOOD AUTHORITIES EXPOSE ALBUMENIZED BAKING POWDER.

In the last bulletin of the State Board of Health of New Hampshire a certain baking powder was passed with the exception of egg albumen which was denounced in the following language:

"The amount of egg albumen present is so small that it can have no material value either as a food constituent or for leavening purposes. It is known that this small quantity is added for the deliberate purpose of causing such powder to give a fictitious appearance of quality when treated by the so-called water test for determining the leavening value. In this test the trace of albumen serves to confine the gas, causing the contents to rise higher in the tumbler than would otherwise occur. Because of the palpable element of fraud involved, powders of this class are to be frowned upon. In fact, their sale has recently been held as illegal in certain states."

Former Food Commissioner of Illinois A. Hanby Jones and wife are planning a trip abroad this summer.

The State Pure Food and Drugs Department of Tennessee has established a record this year in the inspection department. For the first eight months, to Sept. 1, 4,800 inspections had been made and 145,000 pounds of food condemned and destroyed. Two hundred and forty-five towns were visited during the inspections, covering 85 counties. The number of inspections made falls a few short of the number made for the entire year of 1912.

James H. Wallis, the food and drug commissioner of Idaho, is a newspaper man. He owned the *Paris Post* in its early days, and one time conceived the idea of running a few locals to advertise its merits. One of them read, "Have you that tired feeling Try the *Post*." Another read, "If you are troubled with biliousness, stomach trouble, or indigestion, take the *Post*. Fifty-two doses for \$2.00." These ran for several issues. Finally one of his subscribers in a nearby town wrote: "Dear Mr. Wallis: Have had several doses of the *Post* and am entirely cured. Please stop the *Post*." It is needless to say that Commissioner Wallis blue penciled those ads.

Feed Manufacturers Convene

SIXTH ANNUAL MEETING OF THE ASSOCIATION

MEMBERS of the American Feed Association and several control officials gathered May 22 and 23 at the Auditorium, Chicago. The convention was a great success from start to finish. The president of the association, G. A. Chapman, with the Quaker Oats Co., inaugurated the convention at 11 o'clock with an eloquent address. He said in part as follows: "It is a matter of note and mutual felicitation that our membership has almost doubled and in every way the association is stronger and better equipped to look after the interests of its members than ever before. The benefit of co-operation has been proven, the finances of our association is in excellent condition. The members of the executive committee have been loyal, energetic and painstaking in their services to this association, and some of them have traveled hundreds of miles to attend these meetings with regularity, and others have given up many days of their time to their great inconvenience and loss of business; to these men and Secretaries Brown and Anderson I desire to express my own great appreciation and in doing so I know that I am only voicing the sentiments of the members of our organization. The principle for which our association stands—that is, the square deal, not only for the manufacturer, but for the feeder and feed control official—the policy of assisting the feed control officials to solve problems pertaining to his work and to the feed manufacturing business, in fact, the 'Open-door policy' wherein the feed control official is invited to study the feed manufacturer business from first hand observation of mills and milling methods is one, which is winning words of approbation and establishing confidence, where formerly there was but discord." Mr. Chapman cited quotations from the address of President J. D. Turner, at the annual meeting of the association of feed control officials, November last. "A feeling of mutual co-operation between manufacturer and official being established, uniform loss agreed upon and adopted in a number of States. The question of definitions has been considered and a list adopted, which is generally satisfactory with few exceptions. A federal feed law based upon the probation of a uniform law has been prepared by a committee from the feed manufacturers' organization and officials from these associations, to be presented to Congress for consideration if the respective associations approve it. There has been less litigation in the various states on points relative to the enforcement of the laws in local communities than ever before. The feed trade has been, to a large extent, purged of the many forms of fraud and misrepresentation previously existing.

"In the past year or two many newcomers have entered the field in manufacturing specialty feeds, and as we go along, new blood will constantly be coming in, many of these have or will have no knowledge of the penalties which the feed trade in years gone by have paid because of misrepresentations and inferior products. This new body must have constantly kept before them the lessons of the past, that inferior products masquerading under false names are their own punishment, that misrepresentation must react eventually, not only upon the perpetrator, but upon the whole trade of which he is a part. It is common business sense that the confidence of the purchaser must be maintained at all cost, or failure will result. Confidence once shaken is a long time in becoming again established."

The report of Secretary L. F. Brown followed: "During the year and by the direction of the executive committee, I prepared what we named 'A Digest of Feed Laws.' As far as I am aware, this is the most elaborate work of its kind in existence. I believe the basic principle to be correct and the defects will be remedied as fast as they may be revealed. The entire matter has been copyrighted. Several cases of misbranding have been reported to the association, and most all of them have been corrected.

"Under existing laws a universal tag, and by that I mean a tag which would pass in each of the forty-two states now having some form of a feeding stuff's law must carry not less than twenty distinct items of information. This statement carries added significance when it becomes known that some of the states refuse to accept certain names for certain materials, which are accepted and demanded by some other

state. As far as I am aware, no legislation inimical to the feeding-stuff's industry has been proposed during our present fiscal year. A bill embodying the principles of our proposed uniform law was presented to the legislature of the state of Virginia. That body adjourned without taking definite action, which was regrettable.

One of the events of the year, the final outcome of which will be awaited with considerable interest, is the court proceeding which resulted in an order restraining the Commission of Agriculture of the state of Arkansas from enforcing that provision of the law which requires the payment of an inspection fee of twenty-five cents per ton. The injunction was granted on the ground that the revenue thus secured would greatly exceed the cost of inspection and that therefore the statute was a revenue-producing measure and in conflict with the constitution.

"Commissioner Page had, prior to the instigation of the proceedings, suggested to the legislature the desirability of lowering the fee, a suggestion which the legislature failed to adopt. A Federal feeding-stuff's law is not materializing as fast as would seem desirable. The enactment of a Federal food law very materially assisted state officers in the enforcement of state food laws, is a well recognized fact, and I can see no logical reason why a Federal feed law would not produce similar results.

"A condition for which the manufacturer is not really responsible but which is causing him considerable annoyance is the practice of some retail dealers in not disposing of all sacks of old stocks before placing new stocks on sale. A dealer sees no harm in piling a car load of new goods in front of a few sacks of older goods of the same brand name. This proceeding may be repeated several times. At the psychological moment the feed inspector drifts in and draws a sample from a few bags which may have been in stock a couple of years. The publication of an analysis of this sample may work a serious injustice to the manufacturer, or the manufacturer may have slightly changed his guarantee or his ingredients, and it will develop that at the time the sample was taken, the goods are not properly licensed, but were properly licensed for a reasonable period after receipt by the dealer. While the dealer is primarily responsible for this condition, the manufacturer is compelled to reimburse the dealer in the event of a fine if he expects to hold his trade.

"Another condition prevails in some states which is hardly fair to the manufacturer and that is the practice of publishing only those analyses and reports which indicate a violation. Under the double standard (that of declaring both the analyses and the ingredients) which the manufacturer has to meet, it is almost a foregone conclusion that occasionally a few bags of feed will get out that are not just as they should be or as the manufacturer intended them to be. Almost innumerable cases make this a condition which is bound to occur once in a while, and it is these few bags that the feed inspector is so liable to find and draw a sample from. The same inspector will draw two dozen other samples of this same brand of goods which will be found to be all right, or as frequently happens, better in the way of analysis than the guarantee indicates. The results of analysis of the good samples are never published. The results of the analysis of the bad samples are published and the purchasing public is thereby not only invited but practically compelled to form his opinion of the value of that particular brand, by being furnished with but one-twenty-fifth of the information in the possession of the administrative officer and to which a purchaser is justly entitled.

"At the informal meeting held in Washington, November 7, our association adopted the following resolutions:

"Whereas, The Department of Agriculture of the United States acting under the authority of Congress, has formulated tentative grades to be applied to corn moving in interstate and foreign commerce, and,

"Whereas, This governmental action has aroused widespread and general interest throughout a large section of the country, and,

"Whereas, The Department of Agriculture through its representative, Dr. J. W. T. Duvel, crop technologist of the Bureau of Plant Industry, and the Grain Dealers' National Association in convention assembled, in the city of New Orleans, have devoted the day of October 15, 1913, to a formal conference on the questions thereby raised, for a wise and practical solution of the same, and,

"Whereas, It is most desirable to not disturb well established and deeply rooted practices of the commerce in corn throughout the country, therefore, be it

"Resolved, That it is the sense of the American Feed Manufacturers' Association that the grades proposed by the Department of Agriculture in the main be and hereby are approved, but that a change in the name of one grade and the numerical position of three grades is desirable in the interests of commerce, whereby long continued practices will not be materially or injuriously disturbed, and be it

"Resolved, That to this end, it is the sense of convention that the grades of No. 1 corn and No. 2 corn as proposed by the department shall be approved, but that the grades proposed by the department as No. 3 corn with a maximum moisture content of 17.5 per cent, shall have for its name 'Standard Corn,' and that the remaining three grades proposed by the department as Nos. 4, 5 and 6, be numbered 3, 4 and 5, and be it further

"Resolved, That inasmuch as the requirements pertaining to the percentage of dirt, unsoundness, broken grains and foreign matter of the several grades formulated by the department are not dissimilar from those contained and specified in existing rules, and inasmuch as the practical working of existing rules has shown the error of the absolute exclusion of mahogany corn from the grades below the grade of No. 2 corn, that it is the sense of this convention that mahogany corn be admitted into the grades as follows: No. 3 corn 1 per cent, No. 4 corn 2 per cent, and No. 5 corn 3 per cent. otherwise percentages as proposed by the department be agreed to.

"Be It Further Resolved, That because of the lack of Federal jurisdiction over intrastate business, it is the sense of this meeting that the greatest good will be derived from a system providing for Federal supervision only, which would place its stamp of approval upon all official state or board of trade inspections.

"Resolved, That the government be requested to pass such laws, or if present laws permit, to provide such Federal supervision over the inspection of grain as will insure uniform grading throughout the United States.

"Through the medium of a committee from our association the question of a modification of the definitions for cornstarch by-product both with and without corn bran and clipped oat refuse was presented to the Association of Feed Control Officials. After due consideration said association adopted definitions for corn gluten feed, corn gluten meal, and clipped oat by-product.

Chairman Edwards of the executive committee, made the following report: "Owing to the increased activity of the association, your executive committee has been exceedingly busy the entire year. There have been several subjects presented to your committee that should properly come before the association for action and, as chairman, I desire to present the following subjects for your action at this meeting.

"First. The necessity for the adoption of a new constitution and by-laws has been felt by your committee for some time as an absolute necessity for the handling of the association owing to its rapid growth. For the purpose of facilitating matters along this line, your executive committee have caused to be prepared such changes as they found necessary and recommend their adoption.

"Second. Owing to the many complaints filed by members regarding the irregularity of the quantity of fiber in the cottonseed meal, the failure to pack same in sound, heavyweight bags, many times causing a shortage by sifting, also the irregularity of the weight of the package, your committee appointed a sub-committee to file a protest with the Cotton Seed Crushers' Association.

"This sub-committee has prepared a resolution which your executive committee recommends to this meeting for action.

"Third. Your committee has recently received a copy of a set of rules governing the grading and also the purchase and sale of alfalfa meal, formulated by the National Alfalfa Millers' Association. Your executive committee recommends a thorough discussion of the rules and grading and have requested the president of the National Alfalfa Millers' Association, Mr. Otto Weiss, who is also a member of this association, to present same for your consideration.

"Fourth. Your executive committee recommends the adop-

tion of the definitions of feeding stuffs recommended by the Association of Feed Control Officials of the United States. This resolution will be presented by F. A. McLellan, chairman of the definition committee.

"Fifth. Your committee recommends the adoption of a resolution approving the net weight amendment to the Food and Drug Act including in this resolution that the rules governing the transactions between members on different commodities contain rules in conformity to the net weight law.

"Sixth. Your committee has received many requests from members asking that the association adopt a uniform sales contract which will eliminate as much as possible some of the abuses which have been brought to light in reference to the sale of goods under a blanket contract guaranteed against decline."

Elmer S. Savage, professor of animal husbandry, Cornell University, delivered his address entitled, "The Attitude of the Teacher to the Mixed-Feed Industry." The professor fully realized that the nature of his work made him tread on delicate ground, but gave the facts as he saw them and he interpreted them to his students. The professor had compiled prices between the prices of straight by-products and prices of five well-known stock feeds, giving the latter for the sake of comparison and assumed formula based upon average analysis. The professor concluded that the selling price of mixed stock feed based upon total nutriment, was too high compared with the selling price of straight by-products, as reported to him by farm bureau agents in twenty-five counties.

The conclusions arrived at by the professor naturally aroused great contention from members of the association. It was pointed out that an average content of 45.3 per cent protein of cotton-seed meal is unfair, when used for comparison of straight by-products and mixed stock feed. Mr. Savage suggested that the formula of every stock food be printed on a tag, thus giving the feeder a better opportunity for computing an estimate of total feeding value, than would be rendered by using an assumed formula.

It is readily understood that the special care and knowledge bestowed upon a mixed feed renders it available in many cases, where facilities and proper knowledge of mixing feed are very poor or totally lacking—a fact which was brought to the attention of Professor Savage by the mixed-feed manufacturers. The professor's method of choosing foods for a ration is based on the amount of digestible material contained. The water and the indigestible material are like the filler in a fertilizer. Add the digestible protein, the digestible carbohydrates, and the digestible fat, multiplied by two and a quarter ($2\frac{1}{4}$) in a food, and the result will be a measure of the digestible material in that food. This sum is called the *total nutriment* of the food. Divide the price per ton by the pounds of total nutriment in one ton. The result is the cost of one pound of total nutriment. Choose for the ration, from the desirable from other standpoints, those foods which yield total nutriment the cheapest. The ordinary coarse foods in use in the state of New York are mixed hay, corn, silage, and corn stalks or fodder. These are very similar in composition as far as the balance between protein and carbohydrates is concerned. The ration then is usually balanced on the grain food. Ordinary grain foods may be conveniently divided into three groups: low protein (less than 12 per cent), medium protein (12 to 25 per cent) and high protein (over 25 per cent). For the sake of variety it is desirable to use at least three grain foods. If one low protein food, one medium protein food, and one high protein food are mixed together, equal parts by weight, the mixture will make a well-balanced ration to be used with ordinary mixed hay, silage or corn fodder. If clover or alfalfa hay is largely used, less high protein food is necessary. In amount, in addition to what hay and silage she will readily eat, a cow in full milk, giving four per cent (4%) milk, or better, should have one pound of grain to three or three and one-half ($3\frac{1}{2}$) pounds of milk daily; a cow giving milk with less than four per cent (4%) fat should have one pound of grain to three and one-half ($3\frac{1}{2}$) or four (4) pounds of milk. An ideal grain ration should weigh about one pound to the quart. To secure this, the mixture should contain at least one light food.

F. D. Fuller, chief deputy state chemist of Indiana, recognized the fact, that the mixed-feed industry has developed wonderfully during the past decade. Today the members of the Association of American Feed Manufacturers represent invested capital of many millions of dollars with an output which is sold in practically every state of the Union.

Mr. Fuller stated relative to the future what could be done along the lines of improvement from an official point of view

of the manufacturers doing business in the state of Indiana, it is undoubtedly true that less than one-half of one per cent are guilty of attempting to evade the law at the present time. In additoin to these we occasionally find others who make unwarranted claims for inferior goods, misrepresent their products, use misleading terms to designate the ingredients used in compounding mixed feeds and as a result we find the honest manufacturer at a disadvantage owing to the unfair competition which has arisen. It is true that competition is the life of business but it must be clean and beyond suspicion. Regarding the guarantees for fat, protein and fiber, he laid stress upon the fact that it is absolutely essential to carefully watch the quality of the raw material entering mixtures, and let the finished product go out without knowing its analysis. Do not base your guarantee of the entire season's output upon the analysis of one sample.

The following officers were elected for the ensuing year: President, G. A. Chapman, Chicago.
First Vice President, M. C. Peters, Omaha.
Second Vice President, J. C. Reid, St. Louis.
Third Vice President, J. J. Ferguson, Chicago.
Treasurer, W. R. Anderson, Milwaukee.
Secretary, L. F. Brown, Milwaukee.

Board of Directors—S. T. Edwards, Chicago, chairman; J. H. Genung, Indianapolis; H. G. Atwood, Peoria; Chas. A. Krause, Milwaukee; J. W. Anderson, Kansas City; Chas. Staff, Detroit; C. P. Wolverton, Buffalo; W. A. Reynolds, Charlotte, N. C.; R. W. Chapin, Hammond, Ind.; F. A. McLellan, Buffalo; O. E. M. Keller, Minneapolis; C. U. Snyder, Chicago; H. A. Abbott, Chicago; H. C. Joehnck, Lyons, Ia., and G. E. Patteson, Memphis.

Executive Committee—S. T. Edwards, chairman; H. G. Atwood, Chas. A. Krause, F. A. McLellan, J. H. Genung, J. W. Anderson.

FOOD INSPECTION DECISION NO. 153.

Amendment to Regulation 9, relating to guaranties by wholesalers, jobbers, manufacturers, and other parties residing in the United States to protect dealers from prosecution.

Regulation 9 of the rules and regulations for the enforcement of the Food and Drugs Act, June 30, 1906 (34 Statutes, 768), is hereby amended, effective May 1, 1915, so as to read as follows:

REGULATION 9. GUARANTY. (Section 9.)

(a) It having been determined that the legends "Guaranteed under the Food and Drugs Act, June 30, 1906," and "Guaranteed by (name of guarantor), under the Food and Drugs Act, June 30, 1906," borne on the labels or packages of food and drugs, accompanied by serial numbers given by the Secretary of Agriculture, are each misleading and deceptive, in that the public is induced by such legends and serial numbers to believe that the articles to which they relate have been examined and approved by the Government and that the Government gaurantees that they comply with the law, the use of either legend, or any similar legend, on labels or packages should be discontinued. Inasmuch as the acceptance by the Secretary of Agriculture for filing of the guaranties of manufacturers and dealers and the giving by him of serial numbers thereto contributed to the deceptive character of legends on labels and packages, no guaranty in any form shall hereafter be filed with and no serial number shall hereafter be given, to any guaranty by the Secretary of Agriculture. All guaranties now on file with the Secretary of Agriculture shall be stricken from the files, and the serial numbers assigned to such guaranties shall be canceled.

(b) The use on the label or package of any food or drug of any serial number required to be canceled by paragraph (a) of this regulation is prohibited.

(c) Any wholesaler, manufacturer, jobber, or other party residing in the United States may furnish to any dealer to whom he sells any article of food or drug a guaranty that such article is not adulterated or misbranded within the meaning of the Food and Drugs Act of June 30, 1906, as amended.

(d) Each guaranty to afford protection shall be signed by and shall contain the name and address of the wholesaler, manufacturer, jobber, dealer, or other party residing in the United States making the sale of the article or articles covered by it to the dealer, and shall be to the effect that such articles are not adulterated or misbranded within the meaning of the Federal Food and Drugs Act.

(e) Each guaranty in respect to any article or articles

should be incorporated in or attached to the bill of sale, invoice, bill of lading, or other schedule, giving the names and quantities of the article or articles sold, and should not appear on the labels or packages.

(f) No dealer in food or drug products will be liable to prosecution if he can establish that the articles were sold under a guaranty given in compliance with this regulation.

W. G. McADOO,
Secretary of the Treasury.
D. F. HOUSTON,
Secretary of Agriculture.
WILLIAM C. REDFIELD,
Secretary of Commerce.

Washington, D. C., May 5, 1914.

COST OF PASTEURIZING MILK.

With a properly designed and properly operated plant, the average cost of pasteurizing milk is \$0.00313 a gallon, and of cream \$0.00634 a gallon, according to tests recently conducted by the U. S. Department of Agriculture. These tests also show that the "flash" process, by which milk is raised to a temperature of 165 degrees F. and kept there for a moment only, is more expensive than the "holder" process, in which milk is maintained for 30 minutes at a temperature of 135 to 145 degrees. The "holder" process requires 17 per cent less heat than the other, and in addition there is a saving on the expense of cooling. For hygienic reasons, also, the Department recommends the "holder" process.

Many milk plants and creameries, it was found, do not attempt to make any use of the latent heat in the exhaust steam from their engines and steam driven auxiliaries. This heat would be sufficient, in many cases, for all the pasteurizing done in the plants, if it were properly utilized instead of being permitted to go to waste. When exhaust steam is used, it is calculated that for every 400 pounds of milk pasteurized per hour with it, one horsepower is taken from the boiler load, with a consequent saving in fuel cost.

Another common source of waste was found to be the faulty arrangement of apparatus and leaky piping. The loss from these causes may run as high as 30 per cent of all the heat required, a loss that can be reduced to negligible proportions by proper arrangement. The use of the regenerator, in particular, by which a large portion of the heat in the pasteurized milk is transferred to the raw product, is also an important factor in securing maximum economy.

In considering the cost of pasteurizing, the investigators estimated the life of the necessary apparatus at four years, and the annual depreciation, in consequence, was figured at 25 per cent. This is due to the fact that the whole dairy apparatus must be taken apart after each operation in order to give it a thorough cleaning. This necessarily results in rough usage. The mechanical equipment, such as the engine, boiler, shafting, etc., has, on the other hand, been considered as depreciating at the rate of only 10 per cent per annum.

In these tests, the results of which are contained in Bulletin 85, the investigators have confined themselves entirely to the engineering features of pasteurizing, their object being to ascertain as closely as possible the necessary cost of the process. The hygienic and sanitary aspects of the question are covered in other publications of the Department of Agriculture.

RETAILERS ELECT OFFICERS.

At the annual convention of the National Retail Grocers' Association, held at Louisville, Ky., during the third week of May, the following officers were elected for the ensuing year: President, F. B. Connolly, California; vice-president, John F. Schafer, Iowa; treasurer, Geo. Suhr, New York; secretary, John A. Green, Ohio; trustee, F. W. Mendum, Massachusetts. San Francisco was given the convention in 1915.

Ice cream manufacturers of Iowa outside of Polk county must conform to the state standard in making ice cream for the summer trade, according to instructions given by W. B. Barney, state dairy and food commissioner. Owing to the case now in the supreme court, which originated in Polk county, testing the constitutionality of the state ice cream standard law, the food inspectors are barred from any activity under this law in that county until after a decision is announced by the court, the department has ruled.

Federal and State Co-operative Work

COMMITTEE DRAFTS REGULATIONS FOR USE OF STATE AND FEDERAL OFFICIALS

HARRY E. BARNARD, state food and drug commissioner of Indiana, has just sent out to all food inspectors in the state the following regulations, drafted by a Committee on Co-operations, composed of state and federal officials. The federal department suggests the adoption of the regulations by all states, according to Commissioner Barnard.

"In brief these regulations are as follows:

"1. United States Inspectors are authorized to collect samples of articles sold in Interstate Commerce which appear to be in violation of the laws of the state in which they are found. All state officials are requested to furnish information as to violations of the national law.

"2. The government desires that whenever a state official can place his inspection force at the service of the Secretary of Agriculture to aid in the enforcement of a national law that this service shall be furnished as the occasion may demand.

"3. Three things are necessary to successful prosecution of a shipper of adulterated or misbranded foods or drugs under section 2 of the federal law:

"1. The article sampled must have been shipped in interstate commerce.

"2. The sample must be received by the analyst in the identical condition in which it was shipped from another state. (Sample must be an "unbroken package," or, where this is not practicable, as in bulk goods, the sample must be from an "unbroken package.")

"3. The article sampled must have been adulterated or misbranded at the time it was shipped from another state.

"The gist of the offense is the shipment, that is, in general, the delivery within a state of an article of food or drug to a carrier for transportation into another state. The contents of the sample must be in the exact condition in which they were shipped in order that the analyst or examiner may be able to testify to the composition of the article at the time it was shipped.

The regulations adopted by the three secretaries wisely provide that only those state officials holding commissions from the Secretary of Agriculture, and their agents, shall collect samples on which to base prosecutions under the law. The commissions issued by the secretary must be carefully preserved so that they may be produced, if necessary, to show that samples were regularly collected. *The commissioned state officials should issue similar commissions to their agents, which likewise must be preserved.* What products shall be sampled rests in the discretion of the commissioned state officials, subject to such requests as the Secretary of Agriculture may make from time to time. The commissioned state official shall instruct his agents what samples to collect, and only those samples can be used which are collected by agents within the authority conferred on them by the commissioned state official.

A commissioned state official, or his agent, when collecting a sample within his state which has been received from another state, territory, or the District of Columbia, should keep in mind and use the forms provided by the Secretary of Agriculture. For example, if Mr. Roberts, or his agent, finds in the state of Maine adulterated foods shipped into the state from Illinois, he should procure a sample and take the dealer's receipt therefor. This receipt should contain the information required on the Department of Agriculture form "Dealer's Receipt," and is valuable for the purpose of identifying the samples with an interstate shipment. At least three packages should be procured, when practicable, and in bulk goods enough to subdivide into three parts. He should obtain from the dealer records (invoices, etc.) showing the sale of the shipment of which the sample is a part, and transportation records (waybills, freight receipts, etc.) covering the transportation of the shipment from Illinois to Maine. The dealer's receipt should be signed by a person who can identify the sample with the records of sale and transportation and who can testify that the sample delivered to the inspector was in the same condition as when received by the dealer. The records of the sale and transportation may be originals or copies. Originals are preferable, but all records

obtained should be initialed by the dealer so that he may identify them later. The samples should be sealed and marked by the collector, preferably using Department of Agriculture seals and marks. Other seals and marks which are sufficient to enable the inspector and the analyst to identify the samples and to testify that their contents were in the same condition when opened for analysis as at the time of purchase may be used. He should also prepare a report of collection, using Department of Agriculture "Inspector's description of sample book" and "Inspector's report of collection."

The reports should be delivered to Mr. Roberts with all the samples except one, which should be turned over to Mr. Bartlett, the chemist in Maine appointed by the Secretary of Agriculture as collaborating chemist in the Bureau of Chemistry. Mr. Bartlett should examine the sample promptly and report the results to Mr. Roberts, using the Department of Agriculture analytical sheet and chemist's report. Mr. Roberts should keep a record of the sample in Department of Agriculture sample index card. If, in his opinion, Bartlett's report shows the sample to be adulterated or misbranded, Roberts should send to Matthews in Illinois reports of the inspector and analyst, and one of the samples, and ask him to cite shipper for hearing. Mr. Roberts should notify the Secretary of Agriculture of his action. Matthews should cite the shipper for hearing at once, fixing a reasonable time, and, if requested, should turn sample over to the shipper. Under regulation six hearings are private and confined to questions of fact. The Department of Agriculture form "Appointment for Hearing" should be used and sent by registered mail. The return receipt card should be filed in the records of the case to show delivery of the notice. Everything which transpires at the hearing should be taken down by a stenographer and a transcript made. If it is impracticable to furnish a verbatim report of the hearing, the commissioned state official should dictate a summary of the hearing and have it transcribed immediately after the close of the hearing. The hearing should be conducted in accordance with regulation 5. For further information with respect to hearings the commissioned state official should consult Department of Agriculture Manual of Instruction, page 46. After the hearing Matthews should send all the records received from Roberts to the Secretary of Agriculture, together with the reports of the hearing. If it develops, however, that the shipper holds a guarantee under Section 9 of the law and the guarantor resides in Illinois, Matthews should cite the guarantor for hearing also before him, and report both hearings to the Secretary of Agriculture. Before the guarantor is appointed a hearing, complete information should be obtained from the shipper in the way of records of sale and shipment, identifying the sample in question with a shipment received from the guarantor. The form entitled "Supplementary statement relative to I. S. No. —" should be completed by the shipper. Matthews should notify Roberts when the hearings have been held and also when he has referred the case to the Secretary of Agriculture.

On receipt of the records by the Secretary of Agriculture they will be transmitted to the Bureau of Chemistry for consideration as to whether prosecution shall be recommended. After decision by the department for prosecution the solicitor will prepare the case for report to the Department of Justice. Roberts and Matthews will be notified of the decision of the bureau in prosecuted cases. Roberts will be called upon for a sample to be examined by the collaborating chemist in Illinois to check Bartlett's results and also to make available to the United States attorney in Illinois, where the case will be tried, an analyst with whom he may confer in the preparation of the case. The results of the check analysis will be reported by Matthews to Roberts and to the Secretary of Agriculture. In cases where no check analysis is deemed necessary for the successful prosecution of the case the bureau will notify Roberts and Matthews accordingly. Both Roberts and Matthews should notify the Secretary of Agriculture of any pertinent facts in the case which may come to their notice at any time prior to its termination in court.

Suppose, on the other hand, that Mr. Matthews finds that

manufacturers or jobbers in Illinois are shipping adulterated or misbranded foods and drugs into the state of Maine in violation of the federal law. He should instruct his inspectors to obtain information through the transportation companies, of the dates of shipment and the name of consignees, and make a report to Mr. Roberts giving him the details with regard to the shipment together with his reasons for believing that the articles shipped are adulterated or misbranded. With this report before him Mr. Roberts will be enabled to make a prompt collection of a sample, have it examined, and proceed to prepare a case for prosecution against the shippers, as above outlined.

Or, if, in his opinion, the circumstances warrant such action, Mr. Roberts may ask the United States attorney for the District of Maine to make a seizure of the shipment. Prompt action is necessary to effect seizures of foods and drugs. Adulterated and misbranded foods are liable to seizure under the law as long as they remain in the original unbroken packages—that is to say, generally speaking, packages in which they are shipped in interstate commerce. Under a recent decision of the Supreme Court it is immaterial whether adulterated or misbranded goods have been transferred out of the possession of the original consignee within the state. Proof is necessary, however, to show that the goods either are in the course of transportation from one state, territory or district to another or have been so transported, or have been sold or offered for sale in the District of Columbia or the territories or imported from a foreign country for sale, or intended for export to a foreign country. In presenting proposed seizures to the United States attorney, Mr. Roberts, therefore, should furnish him with evidence in the form of freight bills, waybills, express receipts, invoices, etc., when they are available, showing that the particular lot of goods have been transported in interstate commerce. If the inspectors themselves witness the transportation of goods, a statement to that effect to the United States attorney will take the place of records of interstate transportation. If Mr. Matthews has furnished Mr. Roberts with an analysis of a sample taken from the shipments or from other shipments of the same goods made on or about the same time, and his analysis shows that the goods are adulterated and misbranded, the United States attorney may be asked to seize the goods on the strength of this analysis. It is preferable, however, if there is time, that a sample should be obtained from the shipment after its arrival in the state of Maine and there analyzed. The reason for this is that to obtain a decree of condemnation or forfeiture it is necessary to show that goods are adulterated or misbranded at the time the seizure is made. In the case of perishable goods it is necessary that an examination should be made of samples on their arrival within the state, and it may very well happen that goods which are not adulterated at the time they left the state of Illinois may be adulterated when they arrive within the state of Maine. It is possible also that goods shipped from Illinois may be re-labeled or branded after their arrival in the state of Maine so that, although misbranded at the time of shipment, they may not be misbranded in the hands of the consignee. Mr. Roberts should advise the Secretary of Agriculture and Mr. Matthews promptly of any action he may take with respect to asking United States attorneys to make seizures of adulterated foods shipped from Illinois. The report should be in detail, showing the facts of interstate transportation, the analytical results, particularly in which the goods are alleged to be adulterated and misbranded, and the action taken by the United States attorney.

If the United States attorney accepts his recommendation, Mr. Roberts should obtain and send to the Secretary of Agriculture a copy of the libel filed and should keep him advised of the progress of the suit. Mr. Roberts should ask the United States attorney to obtain authority from the court for him to take samples of the seized goods for analysis; a sufficient number of samples should be procured to be representative of the shipment. These samples should be sealed, marked, and analyzed as soon as possible after they are obtained. Mr. Roberts should advise the Secretary of Agriculture of the number of samples obtained and whether he desires to have any of the samples examined by chemists outside the state of Maine. In contested cases it is frequently important to have examinations of samples made by different analysts, and it will generally be found expedient to have the analysis made by the collaborating chemists in Maine supplemented by analyses made either by the Bureau of Chemistry or by collaborating chemists in other states.

I have requested Washington to forward additional forms,

receipt books, etc. Please familiarize yourself with the method to be employed in the collection of samples as set out in paragraph 3 above. I have suggested a meeting of the federal inspectors with the Indiana inspectors at Chicago for the purpose of devising methods by which a more perfect co-operation between the state and federal officials may be secured.

While at the present time the relations between the federal inspectors and our departments are harmonious and our co-operation wholly efficient, if it is possible for us to do more in the enforcement of the law or to demand more of federal officials, I trust that we may all co-operate to that end.

DRINK AND DRUG HABIT.

MEN who have formed the drink or drug habit know full well that their efficiency is greatly impaired as a result of such habit. They know too that if they could get back to the condition in which they were before such habit was formed they would have a peace of mind and a business status that drink or drug has taken from them. The question with these men is how to get rid of the awful craving for these things that are their undoing. Temperance sermons are mere restatements of the things they know better than those who preach to them.

The exercise of mere will power they understand is insufficient to bring back the status that an evil stimulant had taken away. Modern science has discovered a way of removing the appetite for strong drink and narcotic drugs. And that is all there is to the curing of these habits. Take away the desire for these stimulants and the victim becomes his normal self again, and if he has some wisdom he will not again form the habit.

One of the most effective means of curing the drink or drug habit is the "Neal" cure, which is a three-day treatment that may be taken at any one of the many Neal Institutes in the country.

This is a mild internal, pleasant, quick method of driving out the alcohol in the tissues. It stops the physical craving, revives the physical powers and does its work in from three to seven days. It produces only good effects and is given under ideal conditions in homelike, perfectly equipped Neal Institute, of which there are sixty located in principal cities.

The remarkable merit and wonderful results accomplished by the Neal treatment, prompted Hon. James E. Bruce, a prominent Iowa Senator, banker and practical humanitarian, four years ago to open the first Neal Institute in his native state, at Des Moines, Ia. Following this, other bankers, business men, professional men in different cities, have already caused over sixty of these splendid institutions to be established in the principal cities in the United States, Canada and Australia, and the work is being rapidly extended to all parts of the civilized world.

The head and parent company is known as the Neal Institutes Company, legally incorporated and authorized by law, to transact business with a paid-up capital of \$1,000,000. The head business office and laboratory, where all medicines are compounded under the personal supervision and direction of Dr. B. E. Neal, for distribution to all parts of the world, is located at Des Moines, Ia. The head Neal Institute of all these places is a large five-story, modern building, containing over sixty private rooms for the treatment and accommodation of patients, and located in the beautiful Drexel Boulevard residential district of Chicago, at 811 East 49th Street. Senator Bruce makes this headquarters.

The Blanton Manufacturing Company of St. Louis, Mo., makers of oleomargarine, filed a suit in the United States District Court to test the right of the United States to inspect oleomargarine through the Bureau of Animal Industry of the Department of Agriculture. The suit is directed against Secretary of Agriculture Houston and assistants. Oleomargarine is inspected by the Bureau of Animal Industry, federal authorities say, because it is an animal by-product.

Co-operative companies seem to have felt the financial stringency of the past few months more strongly than the average retailer. Another of these optimistic companies has gone to the wall. This is the store of the Farmers' Union of Nicholas county, Kentucky, against which concern suit has been filed by several stockholders asking that the business of the Nicholas Farmers' Mercantile Company, Inc., be placed in the hands of a receiver, with directions to liquidate the company.

Government Loses Sausage Case

CANNOT LIMIT AMOUNT OF CEREAL AND WATER, IF PRODUCT IS LABELED

THE United States Circuit Court of Appeals, sitting at St. Paul, in a decision just rendered, has directed the issuance of an injunction against the chief inspector of the Bureau of Animal Husbandry in the plant in question, restraining him from refusing to mark sausage "inspected and passed" on the ground that it contains cereal in excess of 2 per cent and water in excess of 3 per cent, so long as it is properly labeled.

The application for the injunction was made by the St. Louis Independent Packing Co., against David F. Houston, Secretary of Agriculture, A. D. Melvin, Chief of the Bureau of Animal Husbandry, and the chief inspector of the district.

Judge Smith delivered the opinion of the court.

After stating the facts he refers to the meat inspection law, 34 Statutes at Large, 669, 674, stating the substance of the first sub-divisions of first, second and fourth sub-divisions, also of the fifth and nineteenth.

He states that the Attorney General of the United States on March 24, 1913, rendered an opinion that the provisions of the pure food law, which was passed on the same day as the meat inspection law, are applicable to meat and meat food products; but without passing upon the correctness of this ruling of the Attorney General, the court calls attention to the following provisions in the pure food law:

"It will be unlawful for any person to manufacture any article of food or drug which is adulterated or misbranded within the meaning of this act."

Also quotes parts of Sec. 7, Sec. 6 and Sec. 3; and concludes that it appears therefrom that while the power to make rules for the enforcement of the meat inspection law is vested exclusively in the Secretary of Agriculture, rules for the enforcement of the pure food law must be made by the Secretaries of the Treasury, of Agriculture and of Commerce and Labor.

The court then refers to Regulation 18, Sub-division 13, as originally promulgated by the Secretary of Agriculture and the following service announcement promulgated prior to April 15, 1912:

"Labels for meat and meat food products to which cereal, potato flour or similar substances are added will in the future be required to have the statements 'Cereal Added,' 'Potato Flour Added,' etc., appear thereon in type of such size as will be in good proportion to the name of the product. Provided the product does not contain more than 5 per cent of cereal, potato flour, etc. If this percentage is exceeded, the word 'Cereal,' 'Potato Flour,' etc., must appear as a part of the name of the product, in the same size and style of type and on the same line, for example: 'Sausage and Cereal,' 'Sausage and Potato Flour.'"

The court then quotes the amendment of Regulation 18 by an addition of Sec. 16 as promulgated on February 28, 1913, by the Secretary of Agriculture, against the enforcement of which new Sec. 16 this injunction was sought. The court then quotes the dictionary definition of sausage as an article of food composed of meat, salt and spices, and also states the allegations of the bill with reference to the composition of sausages and the use of cereal therein.

The court first considers the question raised by appellee as to the jurisdiction of the lower court by reason of the fact that the Secretary of Agriculture and A. D. Melvin, Chief of the Bureau of Animal Industry, are beyond its jurisdiction, and points out that James J. Brougham, the chief inspector, was within the jurisdiction of the court, and as the relief sought was against him as well as against Houston and Melvin, and as it was Brougham's duty to inspect and pass or condemn the appellant's product, neither the Secretary of Agriculture nor Chief of the Bureau of Animal Industry were necessary or indispensable parties under Revised Statutes 737, Judicial Code, Sec. 50, and Rule 39 of the New Equity Rule; and that there was no doubt that jurisdiction existed in this case.

The court then quotes the case of *Armour vs. Bird*, 159 Mich. 123, beginning with "The following facts are established beyond controversy," and says that in view of the statements made by the Michigan Supreme Court, it is the more inclined to believe the allegation in the bill of complaint in this case that it has been the practice for fifty years

to compound in the preparation of sausages so-called, some cereal; and continues, that it was in apparent knowledge of this history that the early regulations of the Department of Agriculture were promulgated on this subject; that it is within the power of Congress to vest in executive officers the power to promulgate administrative rules but this never is deemed to extend to the making of rules to subvert the statutes, citing *Williamson vs. U. S.*, 207 U. S. 425; *U. S. vs. Copper Co.*, 196 U. S. 274; *Morrill vs. Chance*, 106 U. S. 466; *U. S. vs. Gumaud*, 220 U. S. 506; *Leecy vs. U. S.*, 190 Federal 289; that the entire meat inspection law was, as distinctly indicated in it, to prevent the sale of food which is unsound, unwholesome, or otherwise unfit for human use or misbranded; that it was not the design of Congress in that law to provide standards of quality except to prohibit the sale of food which was unsound, unwholesome or otherwise unfit for human use and secure true branding; that the articles in question being such that cereal, or sausage and cereal, was not intended to be prohibited by Congress, but that the act did contemplate that the purchaser should know what he was buying; that the early regulations of the Department of Agriculture were in strict accordance with the statute and notwithstanding that fact that it had been the practice in compounding sausage for many years at that time to mix cereal and the great quantities of water which it would absorb, that fact was not generally known outside of the trade and cannot be presumed to have been known by Congress; that if such combination was sold as sausage, it might be said to be sold under a false or deceptive name as prohibited by the meat inspection law and it might be said that another substance has been mixed and packed with it so as to lower or injuriously affect its quality or strength and that the substance had been substituted wholly or in part for the article as prohibited in the pure food law, but when sold as "Sausage with Cereal" or as "Sausage and Cereal" none of these provisions would apply.

Taking up next the 2 per cent limit of cereal in Sec. 16, the court said that if this simply means it shall not be sold as sausage it possibly may have been valid, but the government does not contend that that is its true meaning; that if it meant that sausage sold as sausage should not contain cereal in excess of 2 per cent, but that sausage and cereal might contain more, it might be sustained. The court then points out that the government's contention is that the Secretary of Agriculture had power to prohibit the manufacture and sale of sausage and cereal where the cereal was in excess of 2 per cent, but says that the Secretary of Agriculture had no power to do so; *that in view of the uncontroverted allegations of the bill, sausage and cereal which contained no dyes, chemicals, preservatives, etc., which render such food products unsound, unwholesome, unhealthful and unfit for human food and which is not by any reason unsound, unwholesome, unhealthful and unfit for human food, is not subject to condemnation under the meat inspection law unless it is misbranded.* The opinion then proceeds to consider the government's contention that the power to make this regulation could be sustained under the last portion of the fifth sub-division of the act, but holds that that is an error; that the secretary has nothing to do with the name of an article so long as it is not false and deceptive and states the question to be whether the secretary could prohibit the making of a compound which was sound, healthful, wholesome and free from dyes, chemicals, preservatives or ingredients which render the same unfit for human food by a mere regulation; and holds that he cannot.

The case was reversed and remanded with directions to issue an injunction restraining the Chief Inspector of the Bureau of Animal Industry in charge of plaintiff's plant from refusing to mark plaintiff's product as inspected and passed upon the ground that it contains cereal in excess of 2 per cent or water in excess of 3 per cent, so long as it is marked "Cereal Added" or "Sausage and Cereal," as now or hereafter required by regulation of the Secretary of Agriculture, and if the Secretary of Agriculture shall hereafter require that the product shall be marked "Water Added" or the amount of water added, the preliminary decree shall be subject to be modified accordingly.

Iowa Wins Ice Cream Case

SUPREME COURT REVERSES AND REMANDS CASE IN FAVOR OF STATE

THE Supreme Court of Iowa has handed down its decision in the well known ice cream case, appealed by the state from the lower court. The decision in full follows:

IN THE SUPREME COURT OF IOWA.

State of Iowa, Appellant, vs. Hutchinson Ice Cream Company, and C. J. Hutchinson, Manager, Appellees, and another case.
(Full Bench) 796, 29784
29,785.

Appeal from Polk District Court,
Hon. W. H. McHenry, Judge.

Two informations were filed by a State Food and Dairy Commissioner before a Justice of the Peace in the two cases, one against the Hutchinson Ice Cream Company and C. J. Hutchinson, Manager, and the other against Sanders Ice Cream Company and L. R. Sanders, President.

The defendants were accused of the crime of selling, exchanging, delivering, and having in possession with intent to sell, exchange and expose and offer for sale and exchange, adulterated food, in violation of Chapter 166, Laws of the 31st G. A., as amended; Supp. to the Code, Sec. 4999-a15 to 4999-a43, for that the defendants did have in possession, with intent to sell, exchange and expose and offer for sale and exchange, and did sell, exchange and deliver a certain food product called ice cream, which was adulterated, in that it did not conform to the standards established by law, being deficient in butter fat, etc.

Demurrers were interposed by the defendants on the following grounds.

First. The acts charged as constituting the offense charged, constitute no crime under the statutes upon which the prosecution is based, i. e., Chapter 166, Laws of the Thirty-first General Assembly, Sec. 4999-a15 to 4999-a43.

Second. If the prosecution is claimed to be based in any respect upon the provisions of Chapter 175, Acts of the Thirty-fourth General Assembly, said act of the Thirty-fourth General Assembly is unconstitutional and void in view of Sec. 29, Article 3, of the Constitution of Iowa, which provides that every act shall embrace but one subject which shall be expressed in its title, moreover said act provides no penalty and being a separate act is not included within the prohibition of Sec. 4999-a15-a43 Supplement to Code.

Third. The legislature had no power to fix the standard of butter fat in ice cream at 12 per cent because

A. Said standard and the statute fixing the same are unreasonable.

B. It invades the individual rights of defendant and is not a mere police regulation having no relation in fact to the comfort, safety and welfare of the public.

C. Said statute is in violation of Sec. —, Article —, of the Constitution of the State of Iowa, in that it arbitrarily interferes with personal liberty and private property without due process of law, having in fact no relation to the public health, comfort or welfare.

D. That said statute is in violation of Section 1, Fourteenth Amendment to the Constitution of the United States, in that it arbitrarily interferes with personal liberty and private property without due process of law having, in fact, no relation to the public health, comfort or welfare.

The demurrers were overruled by the Justice, evidence was taken, and the defendants were found guilty. An appeal was taken to the District Court, where the demurrers were again interposed and sustained. The State appeals. The cases are submitted together. Reversed.

George Cosson, Attorney General.

John Fletcher, Assistant Attorney General.

O. S. Thomas, Special Counsel.

Thomas J. Guthrie, County Attorney.

George A. Wilson, Assistant County Attorney, for the Appellant.

Hager & Parrish and

Walter Jeffreys Carlin, New York City, for Appellees.

Preston, J.-1. One of the objections to the statute on which this prosecution is based is that the act is invalid for non-compliance with Sec. 29, Article 3 of the Constitution of Iowa, in that its subject was not expressed in the title. This constitutional provision, or that part of it relating to the points raised in this case, is that, "Every act shall embrace but one subject, and matters properly connected therewith; which subject shall be expressed in the title."

Chapter 166, Acts of the 31st G. A. (Code Suppl., Sec. 4999-a15 to a30) was an act to prevent the adulteration of foods, etc. This was amended by Chapter 178, Acts of the 32d G. A., by adding to the end of Chapter 166, as Section 18, and now appearing as 4999-a31 of the Supplement to the Code, relating to food standards, and establishes standards for certain articles therein enumerated.

That Section (4999-a31) was amended by Chapter 175 of the 34th Session of the Legislature, the act in question, and fixes a standard for ice cream in addition to the other articles for which the standard has been fixed in 4999-a31. The title to Chapter 175, just referred to, is,

"AN ACT to amend section four thousand nine hundred and ninety-nine-a-thirty-one (4999-a31) of the supplement to the code, 1907, relating to food standards."

The provisions of the act establishing an ice cream standard, after the enacting clause, are:

"1. *Ice cream.* Ice cream is the frozen product made from pure, wholesome, sweet cream, and sugar, with or without flavoring, and if desired, the addition of not to exceed one per cent (1%) by weight of a harmless thickener, and contains not less than twelve per cent (12%) by weight of milk fat, and the acidity shall not exceed three-tenths (3-10) of one per cent (1%).

"2. *Fruit ice cream.* Fruit ice cream is the frozen product made from pure, wholesome, sweet cream, sugar, and sound, clean, mature fruits, and if desired, the addition of not to exceed one per cent (1%) by weight of a harmless thickener, and contains not less than ten per cent (10%) by weight of milk fat.

"3. *Nut ice cream.* Nut ice cream is the frozen product made from pure, wholesome, sweet cream, sugar, and sound, non-rancid nuts, and if desired, the addition of not to exceed one per cent (1%) by weight of harmless thickener, and contains not less than ten per cent (10%) by weight of milk fat."

Some of the other provisions of these statutes, which have some bearing upon the points argued, will be here referred to.

Section 4999-20 provides in part that:

"No person, firm or corporation, by himself, officer, servant or agent, or as the officer, servant, or agent of any other person, firm or corporation, shall manufacture or introduce into the State, or solicit or take orders for delivery, or sell, exchange, deliver or have in his possession with the intent to sell, exchange or expose or offer for sale or exchange, any article of food which is adulterated or misbranded, within the meaning of this act."

Section 4999-21 provides in part:

"The word 'food,' as herein used, shall include all articles used for food, drink, confectionery or condiment, by man or domestic animals, whether simple, mixed or compound."

Section 4999-22 defines adulteration and states in part that:

"For the purpose of this act an article of food shall be deemed to be adulterated:

"First. If any substance or substances has or have been mixed and packed with it, so as to reduce or lower or injuriously affect its quality, strength or purity.

"Second. If any substance or substances has or have been substituted wholly or in part for the article.

"Third. If any valuable constituent of the article has been wholly or in part abstracted.

"Fourth. If it be an imitation of, or offered for sale, under the specific name of another article, or if it does not conform to the standards established by law."

The purpose of the constitutional provision contained in Section 29, Article 3, was, as stated in some of the cases, to prohibit the insertion in an act of incongruous matter having

no connection or relation with the general subject as expressed in the title. It has been held that the title is sufficient, although confined to general terms, if it answers as a key to the subject matter of the Act.

Sisson vs. Board, 128 Iowa, 442, 452.

State vs. Fairmont Creamery Co., 153 Iowa, 702, 715.

It is not necessary that the details of the subject matter, or reasons which brought about the enactment by the Legislature should be set out in the title. If it refers in a general way to the subject and is reasonably germane, and calculated to advise the members of the Legislature, and the people of the nature of the pending legislation, or changes in the laws by amendment, it is sufficient. The requirement that the act shall embrace but one subject, and matters properly connected therewith, was intended to prevent the evils of omnibus bills, and surreptitious legislation. It is not claimed in this case that the act in question does contain more than one subject, but that the subject is not expressed in the title. This, of course, must be done, under the terms of the provision, at least to the extent already indicated. The authorities seem to agree that such provisions are to be given a reasonable construction. As some of them state it, they should be construed liberally to uphold proper legislation, all parts of which are reasonably germane, on the one hand, and to prevent trickery on the other.

Appellees rely on *State vs. Bristow*, 131 Iowa, 664. In the *Fairmont Creamery* case, supra, it was shown that in the *Bristow* case there was nothing in the title to indicate the contents of the act; that the title related only to the act which was repealed, and did not refer to the act which was a substitute for the act which was repealed. Sec. 4999-a31 established standards of more than twenty articles. The essential subject was food standards. The act in question is amendatory to Sec. 4999-a31, and the titles recites that it is:

"AN ACT relating to food standards."

The act in question adds ice cream to the list for which standards have already been established. In our opinion, it was germane, and the act does not offend against the constitutional provision quoted. The point is ruled by the holding in *McGuire vs. Railway*, 131 Iowa, 340, 346, and the *Fairmont Creamery Company* case, supra. See also:

Santo vs. State, 2 Iowa, 165.

State vs. County Judge, 2 Iowa, 280.

Morford vs. Unger, 8 Iowa, 2.

Davis vs. Woolnough, 9 Iowa, 104.

Porter vs. Thomas, 22 Iowa, 391.

Martin vs. Blattner, 68 Iowa, 286.

Christie vs. Ins. Co., 82 Iowa, 360.

Iowa Association vs. Selby, 111 Iowa, 402.

The principal point in the case is, whether the act in question, fixing a standard for ice cream, is within the police power of the State. The contention of defendants, as they state it, is substantially, that the act is not within the police powers of the state, for that it in fact has no relation to the comfort, health and welfare of the public, and hence violates both the State and Federal Constitution by interfering with the personal liberty and private property of the citizen, without due process of law; that it is arbitrary, unreasonable and an unwarranted interference with a lawful business, depriving manufacturers of ice cream of property rights of great value, and depriving both manufacturers of ice cream and the people of their liberty. The contention of the State is, in substance, that the act is clearly within the police power of the State, and hence does not offend against the Federal or State Constitution, unless it has no reasonable relation to the purposes which it is designed to effect. It is conceded by the State that, to be a valid exercise of such power, the act must have relation to the comfort, safety or welfare of the public, but that the welfare of the public involves or includes the right of the legislature to protect the public from fraud and deception; that the Constitution does not secure to any one the privilege of defrauding the public; that it is impossible for consumers of ice cream to determine by any ordinary diligence the ingredients of the product, and that, without a standard, opportunity is afforded unscrupulous manufacturers of ice cream to palm off upon the public a much cheaper and inferior article for a higher quality at the price of the better and more costly product.

There seems to be no serious controversy between counsel for either side in regard to any of the fundamental propositions of law involved, but they agree that the difficulty lies in their application. Defendants concede the validity of the police power in its fullest extent; admit that it is within the power of the legislature to enact laws for the purpose of preventing fraud in the sale of food products; that ordin-

arily the propriety of passing an act of this character is a question for the determination of the legislature; that there are many restraints to which every person is necessarily subject for the common good, and that laws enacted under the police power to promote such purpose may be sustained, although they interfere, to some extent, with the liberty of the citizen and the freedom of contract. On the other hand, it is conceded by the State that such laws, to be valid, and within the police power, must not be arbitrary or capricious, but reasonable and have a reasonable relation to the object to be accomplished.

Such concessions render it unnecessary for us to discuss at length some of the points, or to review the many cases cited. It is said by counsel for appellees* that the only debatable ground in the case, is whether this statute comes within the police power as a measure tending to prevent the liability to fraud and deception; that this is the real question. The wisdom or expediency of such a measure is not for the determination of the court. The presumptions are in favor of the exercise of the power in the enactment. We are to overthrow the act, if at all, only when it violates the Constitution "clearly, palpably, plainly and in such manner as to leave no reasonable doubt." The question is, whether there is any reasonable ground upon which the legislature, acting within its conceded powers, could pass such a law as that now in question. The courts have not attempted to accurately define the limit of the police power, nor is it advisable to do so, because of changing conditions. The power is broad, but subordinate to the Constitution. The courts may and will interfere in a proper case where the legislature has clearly exceeded the constitutional limitations. It is not enough that the case is a doubtful one. Though we might be of the opinion that an 8% or some other standard should have been established, still we ought not to interfere with the standard fixed by the legislature, unless such standard is clearly arbitrary and unreasonable. We shall not take the space to give definitions of police power. The question is discussed at length in the following, among other, of our own cases:

McGuire vs. Railways, 131 Iowa, 340, 354.

State vs. Schlenker, 112 Iowa, 642.

State vs. Packing Co., 124 Iowa, 323.

It is not claimed by either side, as we understand it, that the act in question is a health law. The claim of the State is, that the purpose of the legislature was to prevent the perpetration of fraud upon the public. The public welfare embraces a variety of interests calling for public care and control; these are: the primary social interests of safety, order and morals; economic interests and non-material and political interests.

Freund Police Power, Sec. 9, 15.

The claim here is that the act fixing a standard for ice cream deals with economic interests, the purpose being, as already stated, to prevent fraud. It was said in one of the milk cases, *State vs. Schlenker*, 112 Iowa, 642:

"It is not enough to show that the defendant did not intend to defraud, or that the milk he sold was wholesome. * * * It is enough that adulteration such as prescribed by the statute may defraud, or prove deleterious to the public health or comfort. The legislature may well determine that the adulteration of milk tends to facilitate vicious practices and that it ought to be prohibited."

Laws tending to prevent fraud and to require honest weights and measures in the transaction of business have been frequently sustained in the courts.

McClain vs. Arkansas, 211 U. S., 539, 550.

The Constitution does not secure to any one the privilege of defrauding the public.

Plumley vs. Mass., 155 U. S., 461, 479.

As bearing upon the question as to whether this statute, fixing a certain standard for ice cream, is so manifestly arbitrary and unreasonable as that the legislature was not justified under the police power in enacting it, and whether fraud might have been practiced upon the public in the sale of ice cream, we should here refer to conditions and some of the facts which we ought to presume were known to the legislature when the statute was enacted. We say this because some of the facts and conditions called to our attention existed and were of more or less notoriety at the time of the passage of this law. We are asked to consider these facts and conditions for the purpose of determining whether the act is so manifestly arbitrary and unreasonable as to require us to hold it invalid. If, under any possible state of facts, the act would be constitutional and valid, the court is bound to presume that such conditions existed; whether

a state of facts existed which called for the enactment of this legislation was for the determination of the legislature.

McGuire vs. Railway, supra.
An authority is cited to the effect that when a question of fact is debated, or debatable, and the extent to which a constitutional limitation goes is affected by the truth in respect to that fact, the court will take judicial cognizance of all matters of general knowledge, and will consider expressions of opinion from other than judicial sources given by those qualified by their skill and experience to express such opinions.

Muller vs. Oregon, 208 U. S., 412.
Just how far we should go in regard to such matters, whereas in this case, the decision was on demurrer, we need not determine, for the reason that we are asked by both sides, without objection from either, to consider depositions taken for use, had the case been tried on the merits, reports, trade journals, cook books containing a great many formulas for making ice cream, circulars and the like. These have been abstracted and certified. We shall not attempt to set out all these matters, but enough to illustrate in a general way the points made.

It appears that in seventeen states the standard fixed for ice cream to be sold is 14%; five states have fixed the standard at 12%, the same as our own; but five states which have legislated have a lower standard than Iowa; the Federal Government fixes the standard for ice cream at 14%. It should be said as to the 14% standard fixed by the Federal Government that it is not claimed that such standard has been fixed by law, but by the United States Department of Agriculture. But, even though not law, it would be a circumstance proper to be considered as the opinion of that department. The legislature would not be bound entirely by the conflicting opinions of any of the persons we shall refer to. From these documents, it appears that there is a difference of opinion as to the advisability of establishing a standard for ice cream, or if it is established, the per cent of butterfat the product should contain. Some think a high standard of butter fat is injurious to health, especially for children and invalids; others object to high butter fat contents during the summer months on account of the shortage in the supply. It is contended by some that ice cream should be made from cream, sugar, and flavor solely. An article in a trade journal says:

"Commissioners have agitated a high butter fat standard and we have the significant controverting fact that nowhere is there a great ice cream business built upon a high butter fat formula. The ice cream manufacturers know what the public wants. It does not want an over-rich product because it cannot eat enough of it."

The same article states:
"The moral support of the dairyman, the creamery men and the cheese manufacturer and the milk dealer in these matters will help greatly. They have only to remember that when the ice cream man cuts his butter fat content he adds condensed and that one is about as valuable as the other, if anything condensed is more valuable because it allows the use of all the milk."

Large manufacturers of ice cream from different parts of the country gave testimony and gave their opinions from their standpoint. They state that they would not attempt to define ice cream because it covers a large number of frozen substances. That there is an unlimited number of formulas, cream should be a part of the mix, the same as sugar or flavor. When condensed milk is used the purpose is to add solids, thereby giving the cream better body; the purpose of the cream is to add to the flavor and to add to the body; the largest dealers in the United States are not so-called high butter fat men; butter fat is not the best solid to provide body for ice cream; there are manufacturers who make a high butter fat ice cream and cater only to exclusive trade and get a long price for it. One witness says:

"Speaking in a commercial sense, I do not believe raising the standard to 12% would materially affect that price of ice cream. It would diminish the amount of other solids which would be put in it; the milk producer's skim milk would go to waste. The use of condensed milk has very much increased during the last few years because of the increased demand for ice cream and the extensive use of milk solids in ice cream. Millions of gallons of skim milk used to be thrown away which is not converted into a condensed milk and there is a ready market for it. My experience is that the public prefers 8% ice cream to 12%. The 8% standard was arrived at in Illinois by a commission which investigated the matter and arrived at the standard of 8%. I do not think there should be any standard at all."

Other witnesses gave similar testimony. One manufacturer of many years experience, says that years ago ice cream would test so low in butter fat that you would not know how to find it; that it was then made out of milk, eggs, and corn starch, but that later, "We enlarged the butter fat in it." He says that the man who makes high butter fat ice cream will have to demand more money for it; that normal butter fat ice cream runs from 6% to 10%; that the per cent of butter fat has no relation to its wholesomeness.

Defendants show that consumers would eat a less quantity of ice cream which is rich in butter fat. This would decrease the consumption by the public, and the output and profits of the manufacturers. This would not, perhaps, be a reason for fixing a standard, but may bear on the motive of those who oppose it and affect their claims as to whether the standard is unreasonable. As stated, there are many formulas for making ice cream. Here is one:

"VANILLA ICE CREAM WITHOUT CREAM OR MILK.
One vanilla bean, 8 gills of syrup at 20 degrees, 18 egg yolks.
To be cooked and frozen. Then work in a meringue made of two egg whites and ½ lb. of sugar."

It is shown that the cost to manufacture ice cream containing 20% butter fat is 45c per gallon; containing 7.7%, 29c; and that where condensed milk is used and the product contains 1.9% butterfat the cost is 15½ cents per gallon.

We have set out these matters somewhat in detail for the purpose of showing that the consumer may be defrauded, and as showing the propriety or necessity for fixing a standard, or rather to show that the legislature might properly so determine. We quote at some length from one of the documents submitted:

"Ice cream is one of the delights of the food adulterator, for ice cream is a mixture of various things in which each one more or less loses its identity. The adulterator is able therefore to inject all manner of inferior and often dangerous cheapeners into his product and to compete successfully with the honest manufacturer who makes clean, wholesome ice cream.

"The honest ice cream maker today is working at a decided disadvantage when he is obliged to compete with the dishonest one, since the dishonest one need not label his product so that the ingredients will be shown to the consumer or even to the retailer. This fact was strikingly shown at a recent meeting of ice cream manufacturers in New York, at which one man present declared it was impossible for a competitive ice cream maker to be honest.

"This man asserted, and with much reason, that there were three things that made manufacturers dishonest. These three things were the Federal Government and the State and municipal departments of health, all of which encourage the dishonest manufacturer at the expense of the honest one. As a basis of his argument this man presented three formulas for making commercial ice cream which speak for themselves. Here they are:

FORMULA NO. 1.	
Sells to retailer at \$1.22 per gallon.	
11 quarts 40% of cream at 45c.....	\$4.95
5 quarts grade B milk at 6½c.....	.33
4 quarts condensed milk at 20c.....	.80
9 pounds sugar .....	.45
4 ounces extract .....	.40
	<hr/>
	\$6.93

"When expanded by freezing this quantity of ingredients produces forty quarts of ice cream, containing 20% butterfat at a cost of less than 80c per gallon.

FORMULA NO. 2.	
Sells to retailer at 90c per gallon.	
3 quarts, 40% cream at 45c.....	\$1.35
13 quarts grade B milk at 6½c.....	.85
4 quarts condensed milk at 20c.....	.80
4 ounces gelatine at 24c per lb.....	.06
4 ounces extract .....	.40
7½ lbs. sugar .....	.38
	<hr/>
	\$3.84

"These ingredients expanded by freezing yield forty quarts of ice cream containing 7½% butterfat at a cost of 38c a gallon.

FORMULA NO. 3.	
10 gallons of condensed milk	\$ 8.00
10 gallons of grade B milk	2.60
60 gallons plain water	0.00
4 lbs. gelatine at 20c .....	.80
Color .....	.01

Flavor	1.00
60 lbs. sugar at 5c	3.00
	<hr/> \$15.41

"These ingredients expanded by freezing yield 120 gallons of 'ice cream' at a cost of 13 cents a gallon.

"What the ice cream makers, and consumers as well, need is the creation of ice cream standards and laws which would compel the manufacturers who make 'cheap' ice cream to correctly label their product. A law is needed in New York and other places which will state how much butterfat must be contained in ice cream before it can be called ice cream, and which will prevent the use of gelatine reeking with millions of bacteria and of coal tar dyes, unless these ingredients are labeled.

"Ice cream is a commercially manufactured commodity, and as such should be adequately regulated by the health authorities, both for the benefit of the honest manufacturers and the innocent consumers."

Notwithstanding these conflicting opinions, it was a question for the legislature to say whether this legislation was called for. The legislature was not compelled to take the view of either those who favor or oppose a standard. Taking one view of it, conditions were such as to clearly sustain the action of the legislature. We are not entirely satisfied that this would not be so if conditions were as claimed by the defendants. We are not to say, and do not, of course, determine that these defendants, or the association appearing in argument, or any particular person is or has been guilty of any fraud or deception. The question is whether, without a standard, dishonest or unscrupulous manufacturers may do so. It is not practicable by any ordinary inspection for the purchaser to distinguish cheaper, low grade, ice cream from the better quality. Because of this, it is apparent from the matters which we have detailed that an opportunity is afforded for deception by selling an inferior quality of ice cream at the price of a better or more expensive grade. This was the case in the sale of oleomargarine.

State vs. Packing Co., 124 Iowa, 323.

In this respect it differs from the case of Frost vs. Chicago, 178 Ill., 250, where it was held that a person who is ordinarily careful and intelligent could not be deceived by a netting covering for baskets of fruit. In such case the purchaser could still see and know what he was buying.

The purpose of the act in question was to prevent just such deception and fraud as would be possible without a standard, and it seems to us it cannot be seriously claimed that the statute will not accomplish the end sought.

It is said by defendants that they are deprived of the right to sell their product if it contains a less per cent of butterfat than that prescribed by the statute and that the sale of such is entirely prohibited. This, we think, is an assumption not warranted. They may sell it for what it really is. Possibly it would sell as readily if it is named and sold as frozen skim milk, if not, this would be an additional argument for prohibiting the sale of so-called ice cream made from evaporated skim milk, as ice cream.

The State contends that every point in this case is decided against the contentions of defendants in State vs. Schlenker supra, and State vs. Snow, 81 Iowa, 642. They are very closely in point.

The only case called to our attention in which the question of fixing a standard for ice cream was decided is Bigbers vs. City of Atlanta, 66 S. E., 991. In that case, under an ordinance, the prohibition was not against selling ice cream of less than the prescribed percentage, as ice cream, but against selling it at all. The provision of the ordinance is:

"Ice cream sold or kept for sale must contain at least 10% butterfats, for fruit ice cream, and 12% for plain ice cream."

Under this ordinance, ice cream could not be sold or kept for sale unless it contained the required per cent of butterfat. As already stated, our statute does not prohibit the sale of such product. In the Georgia case, the court said:

"It might be permissible to say that the term 'ice cream' * * * should relate only to ice cream of a certain prescribed richness, and that whoever sold ice cream of poorer quality should either by calling it under some other name, or by indicating on the vessel in which it is delivered, or otherwise, disclose the inferiority of its quality."

This recognizing the distinction which we make between that ordinance and our statute, and holding that the sale of ice cream may be regulated by fixing a standard. Our statute fixes a standard for ice cream and prohibits the sale of anything else as ice cream, but the sale of a product formerly known as ice cream, but containing a lower per cent of fat than that prescribed by the statute is not prohibited. It

may be sold for what it is. It may be sold under some other name and the consumer will not be deceived for he now knows that when he buys ice cream he is getting an article containing a certain per cent of butterfat, and that this may not be so if he buys something not as ice cream but as something else.

Defendants say their case comes within the doctrine of People vs. Marx, 99 N. Y., 377. This must be on the erroneous assumption that the Iowa statute prohibits absolutely the sale of their product if it contains less than the specified per cent of fat. The New York statute referred to in the Marx case did prohibit the sale of oleomargarine, which was shown to be a wholesome article and not injurious, and the statute was held invalid. That statute was amended so as to regulate the sale and held valid in People vs. Arensberg, 105 N. Y., 128; 11 N. E., 277. As amended the statute was entitled:

"An ACT to prevent deception in the sale of dairy products, etc."

It prohibited, (1) the manufacture out of any animal fat, or animal or vegetable oils not produced from unadulterated milk, or cream from the same, of any product in imitation or semblance or designed to take the place of any natural butter produced from milk, etc.; (2) mixing, compounding with, or adding to milk, cream or butter, any acids or other deleterious substances, or animal fats, etc., with design or intent to produce any article in imitation or semblance of natural butter; (3) selling, or keeping, or offering for sale, any article manufactured in violation of the provisions of the section.

The defendant was convicted of selling the article manufactured in violation of the provisions of the act. The court said:

"Assuming, as is claimed, that butter made from animal fat or oil is as wholesome, nutritious and suitable for food as dairy butter; that it is composed of the same elements and is substantially the same article, except as regards its origin; and that it is cheaper; and that it would be a violation of the constitutional rights and liberties of the people to prohibit them from manufacturing or dealing in it for the mere purpose of protecting the producers of dairy butter against competition, yet it cannot be claimed that the producers of butter made from animal fats or oils have any constitutional right to resort to devices for the purpose of making their product resemble in appearance the more expensive article known as 'dairy butter,' or that it is beyond the power of the legislature to enact such laws as they may deem necessary to prevent the simulated article being put upon the market, in such a form and manner as to be calculated to deceive. If it possesses the merits which are claimed for it, and is innocuous, those making and dealing in it should be protected in the enjoyment of liberty in those respects; but they may legally be required to sell it for and as what it actually is, and upon its own merits, and are not entitled to the benefit of any additional market value which may be imparted to it by resorting to artificial means to make it resemble dairy butter in appearance. It may be butter, but it is not butter made from cream, and the difference in cost or market value, if no other, would make it a fraud to pass off one article for the other."

In re Jacobs, 98 N. Y., 98, is cited. In that case the statute purported to be an act to improve the public health by prohibiting the manufacture of cigars in tenement houses. It was held that it was not a health law; that cigar-making had no relation to the health of the public and that the act was not intended to protect the health of the occupants of the tenement. In that case it was held, and the proposition is not disputed by the state, that the constitutional guaranty that no person shall be deprived of his property without due process of law may be violated without the physical taking of property for public or private use and that any law which destroys it or its value, or takes away any of its essential attributes, deprives the owner of his property.

People vs. Biesecker, 169 N. Y., 53; 61 N. E., 990. is also cited. It was there held that the statute under consideration could not be justified as an exercise of power to prevent fraud or imposition on buyers and consumers.

We have referred to these New York cases more fully than necessary perhaps, but, because of the claim made for the Marx case, we have thought it proper to refer briefly to the others as well. The Marx case is cited and distinguished in State vs. Snow, 81 Iowa, 642.

In Schmidinger vs. Chicago, 226 U. S., 578, 57 L. Ed., 364, it was held that a city ordinance fixing the weight of the standard loaf of bread to be sold in the city, and prohibiting the making or selling of loaves not up to the weight

of the standard loaf is not such an unreasonable and arbitrary exercise of the police power as to render the ordinance void under the Constitution prohibiting the taking of property without due process. It was shown in that case that there was a considerable demand for loaves of different size, and that so fixing the size produced some inconvenience. The ordinance was sustained upon the theory that it tended to prevent fraud in the sale of bread.

The court said:
"Furthermore, laws and ordinances of the character of the one under consideration and tending to prevent frauds and requiring honest weights and measures in the sale of articles of general consumption, have long been considered lawful exercise of police power," and that "This court has had frequent occasion to declare that there is no absolute freedom of contract. The exercise of the police power fixing weights and measures and standard sizes must necessarily limit the freedom of contract which would otherwise exist. Such limitations are constantly imposed upon the right to contract freely, because of restrictions upon that right deemed necessary in the interest of general welfare," and that "So long as such action has a reasonable relation to the exercise of the power belonging to the local legislative body and is not so arbitrary or capricious as to be a deprivation of due process of law, freedom of contract is not interfered with in a constitutional sense."

That the legislatures of the states may, in the exercise of the police power, regulate a lawful business, see *Barrett vs. Indiana*, 229 U. S., 26; 57 L. Ed., 1050.

The following cases may be cited as bearing upon the proposition that the legislature, under its police power, may enact laws for the purpose of preventing fraud in the sale of food products:

- State vs. Campbell, 64 N. H., 402.
- Board vs. Van Druens, 72 Atl., 125 (N. J.).
- People vs. Bowen, 182 N. Y., 1.
- Chicago vs. Bowman Dairy Co., 234 Ill., 294.
- People vs. Worden Grocer Co., 118 Mich., 604.
- State vs. Crescent Creamery Co., 54 L. R. A., 466 (Minn.).

All points raised by the demurrers have been noticed. We are of the opinion that the statute is within the police power of the state and is not unreasonable. That it has a reasonable relation to the object to be effected and does not offend against either the Federal or State Constitution in any of the particulars mentioned. It follows that the court erred in sustaining the demurrers. Both cases are reversed and remanded.

The justices all concur.

United States Department of
Agriculture

OFFICE OF THE SECRETARY

SERVICE AND REGULATORY ANNOUNCEMENTS.

FOOD INSPECTION DECISION NO. 154.

REGULATION OF MARKING THE QUALITY OF FOOD IN PACKAGE FORM.

Under Section 3 of the Food and Drugs Act of June 30, 1906 (34 United States Statutes at Large, pages 768 to 772), as amended by the Act of March 3, 1913, entitled "An Act to amend section eight of an Act entitled 'An Act for preventing the manufacture, sale or transportation of adulterated or misbranded or poisonous or deleterious foods, drugs, medicines and liquors, and for regulating traffic therein, and for other purposes,' approved June thirtieth, nineteen hundred and six" (37 United States Statutes at Large, page 732), Regulation 29 of the Rules and Regulations for the Enforcement of the Food and Drugs Act is hereby amended so as to read as follows:

- STATEMENT OF WEIGHT, MEASURE, OR COUNT.
- (Section 8, paragraph 3, under "Food," as amended by act of March 3, 1913.)
- (a) Except as otherwise provided by this regulation, the quantity of the contents, in all cases of food, if in package form, must be plainly and conspicuously marked, in terms of weight, measure, or numerical count, on the outside of the covering or container usually delivered to consumers.
- (b) The quantity of the contents so marked shall be the amount of food in the package.
- (c) The statement of the quantity of the contents shall

be plain and conspicuous, shall not be a part of or obscured by any legend or design, and shall be so placed and in such characters as to be readily seen and clearly legible when the size of the package and the circumstances under which it is ordinarily examined by purchasers or consumers are taken into consideration.

(d) If the quantity of the contents be stated by weight or measure, it shall be marked in terms of the largest unit contained in the package; for example, if the package contain a pound, or pounds, and a fraction of a pound, the contents shall be expressed in terms of pounds and fractions thereof; or of pounds and ounces, and not merely in ounces.

(e) Statements of weight shall be in terms of avoirdupois pounds and ounces; statements of liquid measure shall be in terms of the United States gallon of 231 cubic inches and its customary subdivisions, i. e., in gallons, quarts, pints, or fluid ounces, and shall express the volume of the liquid at 68° F. (20° C.); and statements of dry measure shall be in terms of the United States standard bushel of 2,150.42 cubic inches and its customary subdivisions, i. e., in bushels, half bushels, pecks, quarts, pints, or half pints: *Provided, That*, by like method, such statements may be in terms of metric weight or measure.

(f) The quantity of solids shall be stated in terms of weight and of liquids in terms of measure, except that in case of an article in respect to which there exists a definite trade custom otherwise, the statement may be in terms of weight or measure in accordance with such custom. The quantity of viscous or semi-solid foods, or of mixtures of solids and liquids, may be stated either by weight or measure, but the statement shall be definite and shall indicate whether the quantity is expressed in terms of weight or measure, as, for example, "Weight 12 oz.," or "12 oz. avoirdupois"; "Volume 12 ounces," or "12 fluid ounces."

(g) The quantity of the contents shall be stated in terms of weight or measure unless the package be marked by numerical count and such numerical count gives accurate information as to the quantity of the food in the package.

(h) The quantity of the contents may be stated in terms of minimum weight, minimum measure, or minimum count, for example, "minimum weight 16 oz.," "minimum volume 1 gallon," or "not less than 4 oz.," but in such case the statement must approximate the actual quantity and there shall be no tolerance below the stated minimum.

(i) The following tolerances and variations from the quantity of the contents marked on the package shall be allowed:

(1) Discrepancies due exclusively to errors in weighing, measuring, or counting which occur in packing conducted in compliance with good commercial practice.

(2) Discrepancies due exclusively to differences in the capacity of bottles and similar containers resulting solely from unavoidable difficulties in manufacturing such bottles or containers so as to be of uniform capacity: *Provided, That* no greater tolerance shall be allowed in case of bottles or similar containers which, because of their design, can not be made of approximate uniform capacity than is allowed in case of bottles or similar containers which can be manufactured so as to be of approximate uniform capacity.

(3) Discrepancies in weight or measure, due exclusively to differences in atmospheric conditions in various places, and which unavoidably result from the ordinary and customary exposure of the packages to evaporation or to the absorption of water.

Discrepancies under classes (1) and (2) of this paragraph shall be as often above as below the marked quantity. The reasonableness of discrepancies under class (3) of this paragraph will be determined on the facts in each case.

(j) A package containing two avoirdupois ounces of food or less is "small" and shall be exempt from marking in terms of weight.

(k) A package containing one fluid ounce of food or less is "small" and shall be exempt from marking in terms of measure.

(l) When a package is not required by paragraph (g) to be marked in terms of either weight or measure, and the units of food therein are six or less, it shall, for the purpose of this regulation, be deemed "small" and shall be exempt from marking in terms of numerical count.

W. G. McADOO.

Secretary of the Treasury.

D. F. HOUSTON,

Secretary of Agriculture.

WILLIAM C. REDFIELD,

Secretary of Commerce.

Washington, D. C., May 11, 1914.

Recent Laws and Rulings

"HERRINGS" INCLUDE SARDINES, ANCHOVIES AND SPRATS.

(Federal—Court of Customs Appeals). In a recent decision the United States Court of Customs Appeals, sitting at New York, sustained the decision of the Board of General Appraisers concerning a classification of fish under the tariff law. At the trial the government undertook to show that the term "Herrings" as used in the tariff law was employed in the commercial sense, and that it should be applied to a certain uniform and definite class of fish which excluded those enumerated in the importations in question, namely, sardines, sprats and anchovies. The board found that the proof offered by the Government failed to establish such a commercial understanding or usage.

While the trade testimony introduced by the Government failed to establish a general uniform usage which assigned to the word herrings a definite class of fish which excluded therefrom sprats, sardines and anchovies, the testimony offered did establish *pro tanto*, that among merchants dealing for many years in these variously named fish, it was commonly understood by them that the sardines, anchovies and sprats imported into this country and put up in the manner as was this imported merchandise are all deemed to belong to the class of fish commonly known as herring.

The opinion, after analyzing the evidence as to the scientific understanding of the relationship of the fish in question, says: "Upon the whole it satisfactorily appears in the record that all the classes of fish covered by these importations are of the herring or *Clupeidae* family." United States vs. Miller & Hokstad et al.; United States vs. Moos & Co. et al.; United States vs. Strohmeyer & Arpe Co., February term, 1914. Suit Numbers 1294, 1302, 1394.

TRADE-MARK CASE.

(Federal Court, Mo. Dist.) This suit was brought originally in the District Court of the United States for the Eastern District of Missouri, by Caroline Henrietta Garnier, to enjoin Tekla Rossman from infringing a registered trademark, to restrain her from unfair trade, and for an accounting. The result of the suit was the issuance of an injunction against the defendant, Tekla Rossman. The defendant appealed from the decree of the District Court to the United States Circuit Court of Appeals. The facts of the case were that on November 1, 1910, Caroline Henrietta Garnier registered in the Patent Office at Washington as a trade-mark for cordials a certain combination of letters and words in the French language as follows:

Abricotine
C. Garnier.

She alleged in her statement of the case that she was a citizen of France, residing at Enghien-les-Bains, France, and the trade-mark had been used in her business and that of her predecessor, Andre Georges Garnier, since on or about the 1st day of August, 1872. She alleges that said trade-mark had been registered in France and that the same had been in actual use as a trade-mark by her and her predecessor since that date. In her bill of complaint Mrs. Garnier says that defendant Tekla Rossman is engaged in selling a cordial under the name "Abricotine" upon which the plaintiff claims a trade-mark in commerce between the several states. The defense was that no part of the trade-mark had been used with the exception of the name "Abricotine" and that defendant had a right to use this word. The court in deciding the case in favor of the plaintiff said: "It is not necessary to constitute an infringement that every word of a trade-mark should be appropriated. It is sufficient that enough be taken to deceive the public in the purchase of the protected article." The decree of the District Court affirmed.

Rossman v. Garnier, 211 Fed. 401.

TRADE-MARK CASE.

(Federal Court, Penn. Dist.) Suit brought by the Autosales Gum and Chocolate Company against the H. E. Winterton Gum Company based upon the ground of unfair competition. The plaintiff, the Autosales Company, and its predecessors, the Colgan Gum Company, manufactured and sold gum in chips or disks called "Violet Chips" and "Mint Chips," put up in enameled round tin boxes, the violet in violet col-

ored boxes and the mint in green. The lettering on both was in white with the words "Colgan's Violet Chips—The Gum That's Round." This gum was largely sold in the south and southwest and was put in pasteboard cartons colored to correspond with the boxes and prominently marked on the cover which was provided to be left open, with the same lettering. In 1912 the defendant began putting out a round gum called "Winterton's Satsuma Chips," adopting boxes of the precise shape, size and form of that used by plaintiff, using a light blue and red color, respectively, and the words "Winterton's Satsuma Chips—A Dainty Box for the Purse," in white in the same positions on the box as plaintiff's legend. Defendant's gum was sold in competition with plaintiff's at a less price to the retailer. The plaintiff and the Colgan Company had spent more than \$400,000 in magazine and newspaper advertising. All of such advertising contained prominent pictorial representations of the boxes or containers in which the gum was packed. At the time of the commencement of this suit the defendant had not expended more than \$8,000 in advertising its gum. It had done no pictorial advertising, and but little in trade journals or other periodicals. Its goods had been sold through traveling salesmen in the territory occupied by plaintiff, and apparently in large part upon the strength of the popularity of plaintiff's chips. Since the advent of the defendant's chips, plaintiff's sales have been appreciably affected in some localities; and a part of this interference seems fairly traceable to the competition of the defendant, whose boxes being of the same size and shape, and at a distance of a few feet presenting the same general appearance as those of plaintiff, though actually differing in color. In some instances retailers placed defendant's product in plaintiff's cartons and sold such goods as those of the plaintiff, the reason for this being the much lower wholesale price of the defendant's article. The United States Circuit Court held that defendant was guilty of unlawful competition in the dress of its gum considering the prior trade, and plaintiff was entitled to an injunction restraining defendant from using boxes or containers which might be of sufficient similarity to mislead the ordinary purchaser and also from using the words "Satsuma Wafers." A manufacturer may obtain a monopoly in the right to use a distinctive dress for boxes and cartons containing the goods which have become known to the public by advertising as characterizing the manufacturer's product, which monopoly will be protected against unlawful competition. In order to obtain relief against unlawful competition, it is not necessary that the imitation be such as to mislead the careful and discriminating purchaser, but it is enough if it is calculated to mislead the ordinary and casual buyer. While a manufacturer is not responsible for the fraud of a retailer of his goods, the manufacturer is guilty of unlawful competition if he so dresses his goods as to represent the goods of another and assists the retailer in palming off his goods as those of a competitor.

H. E. Winterton Gum Company v. Autosales Gum & Chocolate Company, 211 Fed. 612.

CATSUP FROM DECOMPOSED TOMATOES IS ADULTERATED.

(Federal Court, Oregon Dist.) The United States, proceeding under the Pure Food and Drug Act (34 Stat. at Large 770), filed a libel in the District Court for the division of Oregon, for the condemnation of 200 cases of tomato catsup, alleging that it was adulterated within the meaning of the act, which declares that a food product is deemed to be adulterated "if it consists in whole or in part of a filthy, decomposed, or putrid animal or vegetable substance." After the seizure the product was claimed by the company which manufactured it and the proceedings defended. The claimant admits the interstate shipment of the catsup but denies that it was decomposed or adulterated within the meaning of the law. By stipulation of the parties, the case was tried before the court without a jury. It turns upon two questions: First, whether in fact the product was decomposed; and, if so, whether it was "adulterated" as defined by the Pure Food Law. It was manufactured from pulp screened from peelings, cores and by-products of tomatoes, obtained in the course of their preparation for canning. The decay or decomposition of tomatoes or a product thereof is commonly the result of the

attack upon the fruit in the field, or in the process of manufacture, of various forms of plant life, such as yeast, bacteria and mold. They feed upon certain compounds in the fruit, reducing the food value of the product, and producing a by-product of a more or less offensive character, and are evidences of decay and decomposition. Various samples of the product were examined under the microscope by officials of the Government laboratory in San Francisco and it was determined that it contained mold, bacteria, yeast and other evidences of decomposition in large quantities. The evidence introduced in the case showed that better methods of handling tomatoes are in vogue in other factories. District Judge Bean in delivering the judgment of the court said in part, "If the testimony in this case is to be considered, and it is uncontradicted, there is in my judgment but one conclusion which can be reached, and that is, the product in question was decomposed and adulterated within the meaning of the Food and Drug Act. It is argued for the claimant that since the presence of bacteria, mold, and yeast in any quantity is evidence of decomposition or the process of decomposition, and there is no fixed standard by which it can be determined when a product has reached such a stage of decomposition as to 'consist in whole or in part of filthy, decomposed, or putrid vegetable substances,' the Government cannot prevail. I infer from the testimony of the experts that it would be difficult, if not impossible, to fix any arbitrary standard by which the question could be determined, as it depends upon so many contingencies. In any event, no such standard has been fixed, and in the absence of which each case must be determined on its own facts, and when it appears, as in this case, that the product is so far decomposed as to be unfit for food, it comes within the letter and spirit of the law. It was also urged that, since there is no proof that the product in question would be injurious to health, a verdict should be ordered in favor of the claimant; but I do not understand that such proof is necessary or required under the provisions of the Food and Drug Act. The object of the law is to prevent the manufacture or interstate shipment of adulterated food, and, when food is adulterated so as to 'consist in whole or in part of filthy, decomposed, or putrid animal or vegetable substance,' its interstate shipment is prohibited, whether its use would be injurious to health or not. I conclude therefore that the motions for nonsuit and directed verdict should be overruled, and that a decree should be entered in favor of the Government, as prayed for in the libel."

United States v. Two Hundred Cases of Adulterated Tomato Catsup, 211 Fed. 780.

FINISHING COLOR WITH OLEOMARGARINE FORBIDDEN.

(New York, Ct. of App.) Agricultural Law (Consol. Laws, c. 1.), forbids manufacturers of imitations of butter to add thereto any substance for the purpose of coloring it to resemble butter, and provides that no person, selling any substitute for butter, shall sell or give away, or deliver therewith, any coloring matter. Other sections of the law prohibit the use of oleomargarine in hotels, boarding houses, etc., unless a notice that it is used is printed on the bill of fare and conspicuously posted. *Held*, that the prohibition against the sale or delivery of coloring matter with substitutes for butter is valid, even though a purchaser of oleomargarine may secure coloring matter at drug stores, or at times other than the time of purchasing the oleomargarine, and assuming that an individual has a right to mix coloring matter with oleomargarine for use in his family; such provision being necessary, not only to prevent retail dealers, hotel and boarding house keepers, etc., from deceiving the public, but to prevent evasions of the federal statute, imposing a tax of one-quarter of a cent a pound on uncolored oleomargarine and ten cents a pound on oleomargarine colored to represent butter.

People v. Von Kampen, 104 N. E. 942.

WRAPPED HAMS AND BACON.

D. M. Kelly, attorney general of Montana, has recently given an opinion to the department of weights and measures that wrapped hams and bacon are not packages within the meaning of the net weight law. In his reply to the inquiry, Attorney General Kelly said:

The question for consideration here is: whether or not portions of meat wrapped as they are by the packing companies can be classed as packages. The ordinary meaning of "package" is a bundle of articles, either all of the same

kind or of different kinds, put up for convenient transportation. In almost every case, except the one which we are here considering, the size of the bundle or package is wholly within the control of the person putting it up, since he may put a greater or less number of articles, or a greater or less quantity of a given product in the package. In other words, the amount contained in the package, bundle, bale, etc., is a matter entirely within the will of the person collecting it. In the case of hams or sides of meat, however, such matters are not entirely within the control of the person preparing them. The variation in size, and weight of these articles depends entirely upon the size of the animal from which they are taken. The custom of the trade has established a certain way or method of selling such articles.

The cases cited in your enclosure, deciding similar questions to your own, arising under the statutes of various states, all hold that hams, bacons and meats wrapped at point of production for more cleanly and sanitary transportation, are not within the purview of such statutes. It is hard to say how very much misrepresentation could be practiced in such a matter as this, or how natural difficulties could well be overcome. The weight might be stamped upon a piece of meat at the time it was wrapped, but because of the natural shrinkage, which is at no time uniform, and which depends upon a number of different factors, it would be impossible to tell at a given time just what the shrinkage upon a piece of meat, so packed would be. The persons who deal in such matters, that is the butchers, and the packing companies, all understand these problems, and are in no way deceived. Persons purchasing from retail merchants have the privilege, if they like, of having their meat unwrapped and weighed, and taking it in that form, if they are not satisfied to accept the weight of the wrapped article.

For the reason, therefore, that hams, bacon and other wrapped meats, which are sold in the form from which they come from the animal, are not packages, bales or bundles in the ordinary conception of that term, and are in such form that the producer has no means of controlling the exact weight thereof, when they are put up, and for the reason that the custom of selling them in this manner is so well understood by persons dealing in such articles, that deception, fraud or misrepresentation would be extremely difficult to accomplish, I am of the opinion that articles prepared for sale in this manner, were not intended to be included within the terms of Chapter 83, Session Laws of the 13th Legislative Assembly.

CONNECTICUT EXPERIMENT STATION.

Various amazing things have been revealed by 1,700 tests of food and drug products just completed by the Connecticut Experiment Station. The most important of these revelations is that the Connecticut five-cent loaf of bread has shrunk 15 per cent in nineteen years.

The average composition of five-cent loaves produced in nine Connecticut cities showed the average weight ranged from 12.92 to 15.28 ounces. Stamford showed the lightest and Hartford the heaviest loaf, a difference of 2.36 ounces per loaf.

Canned pumpkin and squash will not produce the pies that mother used to make, according to some disclosures of the report. One sample of canned pumpkin showed a badly corroded can darkening the contents near the edge. Pumpkin and squash have the power of dissolving tin in relatively large amount, hence they should always be packed in enameled tins.

One of the most interesting investigations was that of a can of asparagus which contained sodium fluoride, a new adulterant for this state and one particularly poisonous.

A real big bunco game is revealed by the test of samples of jelly powders. They contained an average of 90 per cent cane sugar and 8 per cent gelatine. The consumer pays about 22 cents per pound for the sugar. The report comments: "If one wishes to use this sort of material in the preparation of desserts economy would suggest the purchase of pulverized gelatine, to which flavoring and sweetening might be added at will. There is no mystery whatever in the compounding of these powders."

As a result of these tests it is likely that the state will give more attention to its dairy products.

Of the seventy-four samples of butter tested by the examiners, only seven were butter, the others being either renovated butter or oleomargarine. Of the 412 samples of milk but 155 conformed to legal standards. There were 106 samples of watered milk.

Conference on Weights and Measures

REPRESENTATIVES from practically every state in the Union were present when the Ninth Annual Conference on Weights and Measures of the United States commenced the four days' session at the Bureau of Standards at Washington, D. C., May 26, which was the most profitable conference ever held.

Dr. S. W. Stratton, director of the Bureau of Standards, opened the session. After a brief address by the president, L. A. Fischer, chief of the Division of Weights and Measures, made his report.

A very forceful address by Secretary of Commerce William C. Redfield followed, in which he said in part: "You preach the gospel of plain truth and a square deal. We need you in our business. I am glad to welcome you and will be glad to see you go from here, because it will mean more to the country at large when the deliberations of this body are completed."

C. C. Neale, Commissioner of Weights and Measures for Minnesota, gave demonstrations showing the necessity of maintaining scale levers level and the lever connections plumb.

Advocating visits of inspectors of weights and measures to drug stores, creameries and jewelry stores, Fred P. Downing, Chief Inspector of Weights and Measures of Wisconsin, declared that the appliances used in these establishments are not tested as a rule.

The adoption of specifications for cream and milk test bottles was advocated with the testing of such appliances by the sealer.

One of the very interesting features of the convention was the manufacturers' exhibits at the bureau, which were inspected at the close of the session. The Bureau of Standards was also inspected by the members at the conference.

The second day of the conference was spent at a hearing before the house committee on coinage, weights and measures in regard to the Tuttle and Raker bill on standardization of containers.

In the evening the delegates cast aside their troubles and attended an elaborate banquet in the oak room of the Raleigh, when Assistant Secretary of Commerce Edwin Sweet sounded the keynote of the work in which the delegates are engaged by calling them "helpers of the honest tradesmen as well as discoverers of the dishonest."

Representative W. E. Tuttle spoke in humorous vein, saying that he appeared dedicated to the service of his "honest barrel" bill, which he has been vainly trying to get through the House for two years, and that he "seemed doomed to the consideration of cranberry and beer barrels for the remainder of his life."

"We have worried," said he in conclusion, "about war with Mexico and anti-trust legislation and the income tax; but there is nothing more important than to secure honest weights and measures."

Others who spoke were Representatives A. P. Gardner of Massachusetts, Allen B. Walsh and Walter L. McCoy of New Jersey, Clement Brumbaugh of Ohio, E. W. Van Duyn of Iowa, H. H. Henry of Vermont, C. C. Neale of Minnesota, Joseph Hartigan and F. Reichman of New York and Louis Fischer. Director S. W. Stratton of the Bureau of Standards was toastmaster.

The third day of the four-day conference on weights and measures in the United States, meeting at the Bureau of Standards, was devoted to a discussion of the tolerances and specifications of milk bottles, dry measures, berry baskets and scales. A "tolerance," it may be explained, is such a small departure from a stated weight as is deemed inevitable and which the law allows.

Today the milk bottle came into its own. Yesterday it was the cranberry barrel. A committee consisting of Louis A. Fisher and John C. Connors made a report in which the stamp of approval of the conference was asked for a standard milk bottle of three pints. This bottle would be one pint larger than the bottle now in universal use. After much debate the convention placed its sanction on the proposed standard and is now on record as favoring it. This discussion lasted all morning. The afternoon session took up the question of the specifications and tolerances of the other containers mentioned.

It was announced that the inclusion of the three-pint bottle in the list of standard milk containers would not operate to the exclusion of previous standards, such as quarts and multiples of pints and quarts obtainable by dividing by two.

Considerable work was done at the closing day of the conference. In the morning at 9:30 o'clock a demonstration of the testing of various types of scales was made at the municipal building.

The reports of standing committees were heard. O. Evans Mikesell, sealer of weights and measures of Pennsylvania, gave demonstrations with glass graduates suitable for weights and measures officials, while F. S. Holbrook of the bureau showed the methods of Porto Rico in dealing with weights and measures.

Elections were held at which time the following officers were elected for the ensuing year:

President, Dr. S. W. Stratton, director of the Bureau of Standards; vice-president, William L. Waldron, Trenton, N. J.; secretary, Louis A. Fisher, chief of the division of weights and measures of the Bureau of Standards; treasurer, Charles C. Neale, St. Paul, Minn. These men with the following will constitute the executive committee: Hugh H. Henry, Chester, Vt.; John T. Willett, Indianapolis, Ind.; O. Evans Mikesell, Oregon; Fred P. Downing, Madison, Wis.; A. W. Rinehart, Olympia, Wash.; Joseph Hartigan, New York City; Fred C. Albrecht, Columbus, Ohio; Lucius P. Brown, Nashville, Tenn.; Thomas F. Egan, New Haven, Conn., and E. W. Van Duyn, Des Moines, Iowa.

A reception was given by the President of the United States to the 250 delegates to the weights and measures conference at 2 o'clock in the afternoon.

Washington's prestige in the baseball world led to the selection to the national capital as the meeting place for the next national conference of weights and measures. Richmond, Va., and Columbus, Ohio, had in bids for the honor and offered inducements in the form of special hotel rates. Washington's representatives suggested that some good baseball games, such as the ones the delegates witnessed in the recent Detroit series, would be staged here about this time next spring, and that the weights and measures experts could not afford to miss them.

This argument proved sufficient and the capital was selected by an overwhelming majority.

Dr. Carl L. Alsberg, chief of the Bureau of Chemistry, spoke on the "Net Weight Amendment to the National Food and Drugs Act," passed by Congress in the last days of President Taft's regime, and to become effective September 1. His speech follows:

Gentlemen, in coming before you to talk on this matter, I feel more or less as a beginner, because the Bureau of Chemistry has not in the past had a great deal to do with the enforcement of any laws like those with the enforcement of which you gentlemen have been charged. We had a regulation, as you are probably well aware—those of you who also are in touch with the food and drugs acts of your respective states—which provided that if a man stated the weight on a package, or described the contents in any way, it had to be correct. Beyond that we had nothing in the Food and Drugs Act which had to do with weights and measures or with protecting the consumer insofar as short-weighting or short measuring was concerned.

During the past years, however, we have had more or less to do with enforcing weights and measures because a number of states had passed laws. Many manufacturers were putting the contents on their package, no matter where their packages went, so as to avoid the accident that a package which was not marked might reach a state where there was such a law. So, we were getting a little experience in that matter.

When this amendment to the Food and Drugs Act was passed, it became necessary for us to look into the question more thoroughly. In studying the matter it became apparent that the enforcement of this amendment, so far as the Federal Government is concerned, is on rather a different basis from the enforcement of a similar law inside the states. It is a far less simple matter than to enforce a net weight and measure act which applies to a state. As you are probably aware, the control that the Federal Government exercises over food and drugs goes back to Chief Justice Marshall's interpretation of interstate commerce. We simply have jurisdiction over those articles of food and drugs which pass into interstate commerce. We have not any jurisdiction over any article before it is offered for shipment in interstate commerce.

Now, because the Federal Government has jurisdiction

only over that which goes into interstate commerce it is very much more difficult for us in practice to enforce an act such as this than it is for you gentlemen. The offense is the offering for shipment or the shipping in interstate commerce, and therefore, as we cannot catch the goods in most cases exactly at the time they go into interstate commerce, we must be prepared to meet in court a defense based on alleged changes subsequent to shipment in interstate commerce.

This made it apparent that we would have to study in the Bureau of Chemistry the question of shrinkages, the question of variations due to moisture, changes during shipment, to subsequent storage, to sifting, and what-not, in a way that is entirely unnecessary for you gentlemen in the states. You have the goods in your state, and your laws are such that in many cases you need not worry concerning the history of those goods. We have to be concerned not merely with the status of the goods, but with their history. Let me give an example. Some years ago the Bureau of Chemistry endeavored to prosecute a shipper of large-size cheeses, weighing a great many pounds, for short weight. The Bureau was convinced that this concern was short-weighting constantly and continuously. But when it came to prosecution it became apparent that we would have to prove that the shortage in weight was not due to subsequent shrinkage. So we had to wait a while and make some experimental shipments of cheeses to various sections of the country under known and controlled conditions, and determine that this plea was merely an excuse. We found that the shrinkage was very slight, and then made some fresh prosecutions.

That is the sort of difficulty that we are up against that you gentlemen do not encounter. So for the purpose of enforcing the Federal act the Bureau of Chemistry is considering two types of phenomena. For our own use we speak in the Bureau—I am not sure that legally and technically our usage of the words is correct—we speak of tolerances; and we speak of variations. Every one of us in the Bureau has a different definition for what a tolerance is and what a variation is; some of us say there is no difference and some of us say that a tolerance is a permitted variation, and some say that there is a difference, and the use of those two words in the act has given us more difficulty than any one single thing in the act. But, for practical purposes, I think we have gotten in the Bureau, to consider a tolerance and a variation as somewhat different. We are inclined to consider—or at least we are calling a tolerance such a small departure from the stated weight as is due to the inevitable error in packing and putting up the article. Now, automatic machinery is not absolutely accurate; weighing is not absolutely accurate; sorting, measuring, and packing generally is not absolutely accurate, and it is quite evident that Congress intended that some allowance should be made for the unavoidable discrepancies from the stated weight which would take place in honest packing of goods. Congress, it is clear, did not intend that every individual who put up goods should weigh them with the accuracy of the scientist, for obvious reasons. It is a question what degree of variation shall be permitted from the stated quantity, and the Bureau of Chemistry has been at work ever since the passage of the act in studying the packing of various sorts of foods in factories all over the country, and in studying the errors of automatic weighing and packing machinery. It is a long job and we are nowhere near through yet. It will be some time longer before we will have all the data that we need on all articles.

Many curious facts have come out in connection with that study. One would think offhand that the weighing of large size packages—packages that contain one or two hundred pounds—would be apt to be less accurate than the weighing of small packages, that is to say, that the absolute discrepancy from the stated weight—not the percentage discrepancy but the absolute discrepancy from the stated weight—would be relatively greater; that is to say, that a barrel of sugar would be pounds out of the way, where a small package would be not more than ounces out of the way. But, as a matter of fact, that does not seem to be the case. In such staples as sugar and flour the manufacturer seems to be weighing the larger packages with accuracy; so that we are confronted with the question, in deciding on tolerances: Shall we make them as close as the large manufacturer can weigh, and perhaps handicap the small manufacturer by so doing, or shall we take the chance of giving the large manufacturer a slight leeway in order not to handicap unnecessarily the small manufacturer. One sugar refinery, from which we have a report, claims to weigh sugar in barrels to ounces, and states that an overweight of one ounce to the barrel means \$10,000 to the refinery in one year, and they have accordingly claimed that they weigh accurately within an ounce.

The same line of reasoning applies to flour. There is not any question that the millers, in the great mills, weigh flour with exceeding accuracy. I have forgotten what the greatest range that we have noticed was in one of the large-mills. If I remember it was only about a quarter of a pound—four, six or eight ounces; not over that—not over half a pound, which, when you consider an article like flour, which is weighed in the barrel, of 196 pounds, is doing pretty well. The problem that the Bureau has to struggle with is: If millers with an output of several thousand barrels a day can do that, can the small miller do it, and is it fair to demand of the small miller the same degree of accuracy?

In the tolerances, then, for our own purposes, we have considered these variations which are due to packing. Another problem, as you know, is the variations in bottles which cannot always be made absolutely accurate; and for our purposes we have considered variations. I am talking of the Bureau of Chemistry and not the Committee that drafted the preliminary regulation—the changes that occur in a package of food due to climatic conditions and storage. You can, for instance, send sharply dried corn meal to the Gulf states and have it gain in weight, and you can send it to Denver and have it lose in weight. We have had to make studies of that type of variation, and we have run into a lot of curious things. We found in studying the tolerances that on the whole automatic machinery does better work than hand packing; we have found that the accuracy of hand packing and of machinery vary enormously with the article and with the condition of the same article. Take spices, for instance. Machine and hand packing varies in accuracy according to the fineness of the grinding of the spices, according to whether they are fibrous or fine powders.

We found a curious situation in the cracker industry, where it seems to be absolutely impossible for the manufacturer to put up crackers anywhere near the correct weight. The result is that most of the cracker concerns understate the weight so as to be sure that they will not violate the act. We have found that at times packages of oysterettes, for instance, were understated over 50 per cent; simply because the manufacturer wanted to be safe. The manufacturer has to fill the paper carton and the amount of weight that goes into that paper carton depends entirely upon whether the yeast feels like working that day or not. Nobody knows exactly how to get a uniform baking effect with yeast. Some days it seems to be something in the weather—that at least is what the bakers say; some days they get a light, fluffy biscuit which is large in volume and low in weight. They are giving the consumer something which suits him very well, and which he regards as excellent, yet when they fill their carton they do not get anywhere near as much weight into it as they do on another day when the conditions are such that the dough does not raise well and they get a hard, rather tough and smaller cracker. Each one of these weighs more; they occupy less volume but more go into the box. So on the days when the factory is putting out what they call their poorest product they are giving the largest amount of weight. It is a very peculiar situation and the facts are that many biscuit manufacturers understate certain kinds of goods as much as 50 per cent so as not to take a chance of being hauled into court. We have known packages to be understated as much as 56 or 58 per cent.

Then we are confronted with the difficulty, which is one that you gentlemen have also to consider, what is a package? I am not going to try to define what a package is. The committee which drew up the regulations labored for many months over the question of what is a package, and finally submitted a definition which all the attorneys said was not much good, and so it was finally stricken from the regulations, and the regulations contain no definition, direct or implied, of a package. This was done on the theory that in probably 95 or 98 per cent of the cases, or perhaps 99 per cent of the cases, no one with any common sense would have any difficulty in telling whether a given food was in package form or not, and that it was better to leave the decision in the remainder to be settled in each individual case on its individual merits.

Then there is the question that has to be considered of the shipping case. Are you going to require the wholesale grocer or the jobber who sends a shipment of mixed goods to the retailer—a dozen cans of this and a dozen boxes of that, and a dozen packages of spices, and so on, each one of which is labeled in compliance with the law—to put a statement on the outside of his shipping case stating exactly what is in the shipping case? In other words, will he have to duplicate his invoice or his bill of lading on the shipping case? The committee was of the opinion that

Congress did not mean to define such a shipping case as a package and that there was nothing to be gained by making that requirement; that such packages always went to the wholesaler or jobber, who was well able to protect himself, and that as long as the individual packages in such shipping cases were marked the consumer was protected, and that that was all that Congress was apparently concerned with.

Now, gentlemen, I think I have covered the two or three points I wanted to raise, the first of which was that the method of enforcing our law has to be different from that of the states for the simple reason that we are limited by the interstate commerce requirements; that it is not sufficient for us in every case to take a sample off the grocer's shelf, even if it has been there for ten years, and weigh it and find it short weight, but that we have also got to present in such a case some evidence to show that the short weight was not merely the result of storage. In this connection, of course, we will have to consider the normal moisture content of the article. We are obviously not going to allow a man who sells dried fruit and puts 35 per cent of water into it to ship his fruit figuring the water in as fruit, and then escape punishment if he short-weights on the plea that the short weight was due to shrinkage.

Then, under tolerances, we in the bureau have been considering such errors as are permissible in good honest packing, and under variations we have been considering such changes as take place in a package subsequent to its shipment, to decide which changes are and which are not legitimate. You will see, gentlemen, that a certain amount of shrinkage is legitimate in certain products. Take some of these old Smithfield hams that have hung for a year or so. They have lost water; they have lost an enormous quantity of water. They have not lost anything that is of any food value, and the consumer, after all, if he is getting a pound of this desiccated, dried-up ham, is getting as much food value as though he were getting a larger quantity with all the moisture in it of the green ham. We have to consider such questions.

Then we have to consider the wholesale package and the shipping case, which again is a matter that does not particularly concern you gentlemen; and we have to consider variations and shrinkages throughout the country as a whole, which does not concern you gentlemen. We have to consider that a package may shrink 1 per cent in going to a Gulf state and that a 2 per cent shrinkage when it goes to Denver or Utah may be the equivalent, the exact equivalent, of a 1 per cent shrinkage at New Orleans, and we have to make our allowances such, in administering the law, that we will not let the man who ships to New Orleans get by and punish the man who ships to Denver, just because he has the misfortune to ship to a dry climate, whereas the other one who is short-weighting ships to a moist climate.

Those are the points I wanted to make, gentlemen. I wanted to point out that we have in many ways an entirely different problem from that which you gentlemen have.

MINNESOTA CORRESPONDENCE.

(From our Staff Correspondent.)

St. Paul, Minn., May 30, 1914.

A MATTER of importance to those interested in food legislation in Minnesota was the declaration of the Johnston-Cream Shipping Law as unconstitutional by the State Supreme Court during early May. The opinion was written by Chief Justice Calvin L. Brown and the main reason given was that the law was "an unreasonable interference with and prohibition of interstate commerce."

This law provided that all cream shipped for a distance of more than sixty-five miles over any railroad in the state must be carried in a refrigerator car or be pasteurized.

The Chicago Great Western made a shipment of cream ninety-eight miles in order to test the law. They were fined \$15 in the Municipal Court and appealed the case with the above decision resulting.

The annulling of the law is a distinct victory for the centralized cream interests in St. Paul, Minneapolis and Duluth, for the working of the law was a great hardship to them and a serious blow to their business. They have fought it vigorously from the outset.

When the law first went into effect a great many cream shipments destined for the Twin Cities were sent to Hudson, Wis., a neighboring town, and then rebilled.

Cream shipped from another state but yet traveling over sixty-five miles in the state was prohibited, therefore interstate commerce was interfered with.

The sponsors of this law may have had the best interests of pure food at heart, but this law, at best, could not guarantee good cream. Cream that had become nearly putrid could be shipped in a refrigerator car and yet not be in violation of the law, and also cream from places, by luck within sixty-five miles of its destination, might be kept in bad condition and yet shipped and not interfered with.

Pasteurization, to be a success, would have to be done under regulation, and shipment immediately made, because this process only stays the fermentation a short while and a poor cream has already developed bad odors of decomposition and pasteurization will not remove them.

Also, there is no effective field test that will tell absolutely whether or not a cream has been pasteurized.

If the various food departments can develop some effective field tests for bad cream, and prosecute under their present laws the sale of this product as unfit for food, etc., and destroy it, it seems that then the buyers and sellers would get together and see to it that their cream came to the central points in good condition. The centralizers would then demand of their shippers better care in the handling of their cream, more prompt shipments, and pasteurization or shipment in refrigerator cars if necessary, as the particular case might need.

The manufacture of butter from cream which has become badly decomposed has been an abuse no doubt, and any steps to insure the eating public good butter should be commended, but this law, in its language and provisions, failed to accomplish any purpose to advance pure food.

The Minnesota dairy and food commissioner will shortly issue rulings, as per authority provided for in chapter 424, General Laws of 1907, to supplement our net weight and measure laws so as to conform practically with the federal new weight law soon to be effective. The regulations are nearly the same, about the only difference being the "small" package, which is exempt. This was made one ounce, instead of two ounces, in order not to conflict with the present law covering net weights on spices.

The department is to be congratulated on this important step towards uniformity in food legislation.

One of the large butter and cheese journals is making an inquiry from all the dairy commissioners as to their opinion on the pasteurization of cream in butter-making and also their opinion as to the advisability of a law making pasteurization under definite regulations compulsory. Such a law is in force in Denmark today. Over there they use the continuous method of pasteurizing, but whether that system is provided for in the law the writer does not know. It is not likely. A study into the working success of the law over there ought to tell whether or not it would be best for the dairy industry here.

The state department of Minnesota has had their creamery inspectors instructing the butter makers to pasteurize their cream and use a pure lactic culture or "starter" for the fermentation, so it is reasonable to think the commissioner would be in favor of such legislation. This method insures a butter of better keeping quality and flavor, for the starters used are proven flavor producers and since the pasteurization kills off the putrefactive, butyric and other bacteria which break down the composition of the butter fat and milk protein, the keeping quality of the butter is insured.

Mr. Fred G. Smith, who has been in charge of the St. Paul Laboratory of the Bureau of Chemistry since Dr. A. S. Mitchell was called to Washington, left for Chicago on the 16th, leaving the laboratory in the hands of its new incumbent, Mr. E. H. Goodnow.

Mr. Smith will enter upon his new duties in the special field of cereals and feeding stuffs. Coming to St. Paul in 1907, his long stay here made him well known in many circles. He also graduated from the night law course of the St. Paul Law College and was admitted to the bar. His close friends gave him a farewell banquet and tendered him their best wishes for his future success.

Evidence to convict dealers who do not comply with the state sanitary laws will be collected by the Iowa state dairy and food commission by the use of a camera as soon as the state executive council grants W. B. Barney's request for \$75 to buy the outfit. The commissioner has been experimenting with plans to enforce the food measures and he believes that pictures of the actual scenes will go further in court in prosecutions than the testimony of the inspectors.

Saccharin vs. Sugar

LAST YEAR approximately 100,000 Americans died from Bright's and other diseases of the kidneys. Standing alone these figures are impressive. Considering them in connection with two important facts, they become startling.

These facts are:

- (1) That fully 60%, or 60,000 of these deaths could have been prevented or postponed for years if the presence of the disease had been discovered in its early stages.
- (2) That the death rate from these diseases is increasing at an abnormal rate—72% in 20 years and 23% in the last 10 years. (In the registration area.)

—From *The Human Factor*, March, 1914.

It has been estimated that about 20 per cent of our people are either suffering from diabetes or have a tendency to be so afflicted. **Sugar is a known poison to such people** and every physician will tell you so.

Saccharin has no deleterious effects on either the sick or the well. Its discovery represents one of the greatest achievements in the world of science. Why, therefore, unnecessarily subject this great percentage of our people to the possible dangers incident to the use of sugar, when it can be avoided by using Saccharin when practicable.

*"I am forced to the conclusion that the proper interpretation of the decision of the Referee Board in the saccharin case is that saccharin is positively harmless in quantities that would, in practice, be consumed; and that saccharin does not deteriorate or reduce the food value of any article in which it is used as a sweetener. * * * * * It should be stated that F. I. D. 135 was signed by the three Secretaries because it was believed to be approved by the Referee Board as a correct interpretation of the Board's decision. The three Secretaries intended to accept the decision of the Referee Board; and it was supposed that they were doing so in F. I. D. No. 135. But the assumption that F. I. D. No. 135 had been approved by the Referee Board, or by the chairman of that Board, as expressing its decision was, as it turned out, unwarranted and an error."*

From letter of former Secretary MacVeagh to the Secretary of Agriculture, February 27th, 1912.

We strongly recommend that when Saccharin is used to sweeten foods or beverages, the fact be so declared on the label, not because of the proven fact that Saccharin is without harmful or deleterious effects on the health, but, to avoid any possibility of a charge of substitution or deception being made.

Monsanto Chemical Works

Manufacturers of *Saccharin*

SAINT LOUIS

Branch: Platt and Pearl Streets, NEW YORK

Indiana Correspondence

(From our Staff Correspondent.)

INDIANAPOLIS, May 27.—Ice and milk conditions in Indiana just now are perhaps worse, from a consumer's viewpoint, than they have been for years. State and local authorities are combining in an effort to eradicate the sale of dirty milk from the state and the number of arrests they are prosecuting gives mute testimony to the widespread belief among dairymen that they can "get by" without paying even the most cursory attention to the cleanliness of the products from their dairy. For several months this condition has been evident and the returns from various cities and the state on totals of arrested dairymen do not decrease as they should, officials here believe.

In fact each month there is a goodly total of arrested dairymen included in the lists of prosecutions reported to the state department here by its inspectors throughout the state. For the past six months these reports have been coming with unusual regularity. That some additional efforts will have to be employed by state and local officers to cleanse the milk supplies of the state seems probable. Some officials declare that many of the violations of the food laws regarding unclean milk are being "put across" by the same dairymen. If this is true, consumers here declare that examples should be made of these dealers when they are apprehended more than once.

The local ice conditions also are calling for an outburst of complaint from consumers here. Ice has been boosted to 35 cents a hundredweight and the only reason the icemen give is that they have agreed that there is no profit in it at a lower price. Meanwhile cities all about Indianapolis and particularly the smaller towns of Indiana are able to purchase ice, artificial and lake ice, at much lower prices to the individual consumer.

That the milk conditions are bad is shown conclusively in the report for the month of April from the state food and drug department. None of the ninety-eight dairies investigated by state inspectors was reported in first class condition as to sanitation. Forty-six were reported as "bad," thirty-four as "poor" and only eighteen as "fair." The state department has promised that a campaign for the improvement of conditions in Indiana dairies will be waged throughout the present summer. Jesse R. Dunwoody, new city chemist of Indianapolis, who was appointed to succeed Jack Hinman, and Fred Howe, city milk inspector, have just filed four suits charging violation of the pure food law in the sale of adulterated milk against four Indianapolis dealers. Thomas E. Wright, 340 North Keystone avenue, president of the Dun-Right Company, was charged with selling milk adulterated. Henry Wischmeyer, 731 Indiana avenue, was another against whom a similar suit was filed and two affidavits were filed against dealers whose names have not been given out to the public.

The Indianapolis city council has just passed a new market ordinance, which raised the salaries of all market house employes and established new regulations for standholders. The marketmaster hereafter will receive \$1,800 a year instead of \$1,320. The assistant marketmaster will receive \$1,200 a year. Janitors will receive \$60 a month and engineers \$75 a month. One of the principal features of the new ordinance is that both sides of Market street, from Delaware to Alabama street, is to be set aside for producers who sell at retail. No one person will be allowed to have an interest in more than two stands in the market and where interest in two stands is held, the stands must adjoin. The market year is to remain as formerly—June 1 to May 31. The standholders now are to be required to pay \$1 above their rental charges to retain their stands, instead of paying 10 per cent, in addition to the regular rental, as formerly was the case. The \$1 fee formerly charged by the city controller for issuing licenses will be abolished under the new regime. On Tuesdays and Thursdays during June, July and August, the market is to close at 1 o'clock in the afternoon, the board of public safety to fix the closing hours for these days during the remainder of the year.

Alfred F. Potts, an Indianapolis lawyer, who has been taking a special course in public service work at the University of Wisconsin, has just been engaged by the governor of Wisconsin and the board of state affairs to make an investigation at Philadelphia and report a plan for a co-operative cold

storage terminal warehouse system to facilitate direct marketing and enable the producer to lower the total cost of his products to the consumer. Potts, a former president of the old Indianapolis Commercial Club, is well known here. Potts is known to favor the general scheme of bringing producer and consumer together by erecting cold storage warehouses in cities to which farmers and gardeners may consign products for direct sale to the consumer.

Exclusive of the reports concerning the dairies of the state, the following report has been made by the pure food department of the state board of health for the month of April:

During the month of April 55 food samples were analyzed, of which 37 were legal and 18 illegal. The two samples of temperance beer analyzed contained more than the limit of one-half of one per cent of alcohol and were classed as illegal. Two of the six samples of pops analyzed were misbranded and were classed illegal. The illegal sample of cream analyzed was low in butter fat content. Four of the 24 samples of milk analyzed were below standard and were placed in the illegal list. Seven of the ten samples of vinegar examined were illegal usually because of the low acidity or cider vinegar solids.

During the month of April the inspectors reported 927 visits to places handling foods and drugs. Ten of these establishments were classed as excellent, 438 good, 360 fair, 69 poor and 50 bad.

Eight of the 350 grocery stores were found to be in excellent condition, 185 were good, 147 fair, 9 poor and one bad.

One hundred and twenty-five meat markets were inspected. Of this number one was rated excellent, 77 good, 44 fair and 3 poor.

Of the 109 bakeries and confectioneries visited 51 were classed good, 51 fair and 7 poor.

Forty-two of the hotels and restaurants visited were rated good, 61 fair and 8 poor.

Other places inspected during the month included one wholesale grocery, one fish market, 7 poultry houses, 13 ice cream parlors, 2 flour mills, 3 milk depots, 4 ice cream factories, 12 slaughterhouses, 2 bottling works, one creamery, one wholesale produce company, condensed milk company, pure milk company, stockyards and one ice and cold storage plant.

During the month of April six prosecutions were brought for violation of the Weights and Measures and Pure Food and Drugs Act. One case involved the sale of misbranded tincture of iodine; one the sale of misbranded spirits of camphor and one the sale of misbranded foodstuffs. One dealer was prosecuted on two counts, one for the sale of misbranded foods and one for the sale of misbranded drugs, and for each offense was fined eighteen dollars and costs. The fines and costs collected during the month amounted to \$113.00.

During the month of April 38 condemnation notices were issued, 29 because of insanitary conditions and 30 because of improper construction.

COST OF LIVING IN BOHEMIA.

A short time ago, says Consul Frank Deedmeyer, there was held in the city of Prague a meeting of housewives called for the purpose of protesting against acts and measures, private and public, that tend to increase the cost of living.

This meeting was a result of a nation-wide agitation seeking to keep domestic expenditures at least on a par with the domestic income. Resolutions were passed emphasizing the rapidly growing cost of all articles entering into daily consumption, and the Government was urged, when commercial conventions with foreign countries are next prepared, to remove all laws tending to hamper the free admission of provisions for human consumption; to repeal high tariff duties on such articles; and to reduce materially the duty on stock feeds, on beef cattle on the hoof, and on slaughtered meat products. The Government was further asked so to regulate freight rates by land and sea as to cheapen such products.

One of the immediate practical results accomplished by this organization is an understanding arrived at with certain retail dealers in these lines, under which the members of this organization are granted a reduction or discount of 2 to 10 per cent on all purchases made.

You Will Do Us A Favor

YOU will do us a favor if you will report to us any case coming under your observation in which it *seems* the drinking of Coca-Cola has produced injurious effects or has formed a "habit." We use "habit" in the medical sense. We ask this because, though gossip of such cases has reached our ears from the rank and file of the laity under the caption "I heard of such and such a case," we have never yet been able to find an actual, well authenticated *human* case, and have never yet had such a case brought before us or vouched for by a responsible investigator.

¶ Now then — *if* Coca-Cola were harmful, or *if* Coca-Cola formed an injurious habit, it is a dead moral certainty that one or more such cases would have come under your personal observation as a pure food student. Have they?

¶ We want to hear about them from you if you have *apparently* found them.

¶ If you have not—and we are confident you have not—we would appreciate and treat confidentially a word from you to that effect.

Have You Drunk Coca-Cola?

You must try it. Can't we send you some coupons — each good for a glass of it, to the end that you may know its delicious and refreshing qualities.



The Coca-Cola Co.
Atlanta, Georgia

Ohio Correspondence

(From our Staff Correspondent.)

Columbus, Ohio, May 30.

THE state's pure food rulings made from time to time are being codified and will be published in convenient reference form. Among the most important are those pertaining to lard, hamburger, flavoring extracts, macaroni and other flour paste products, sausage, saccharine, alcohol, "merged butter," oysters, forced ripening of citrus fruits, sweet oil, coffee and whisky.

The department states in this connection that one-half the lard on the market contains from 10 to 40 per cent beef tallow. Sodium sulphite and other chemicals are used to brighten up old meats in making hamburger. Meal and other cereals are mixed with pork sausage. Most of the oysters on the market show about 92 per cent water. Coffee is adulterated with chicory, skim milk and renovated butter. Many other ingenious abuses are brought out. Commissioner Strode and Chief Bartlow are making vigorous war on all of them. A very recent important ruling is that whisky must be labeled according to its actual proof. If less than 88 per cent proof it is held to be adulterated.

A bottlers' sanitary code has just been completed and is ready for the printer. It applies to what is commonly known as "soft drinks" and to all mineral waters. The document is of 1,500 or more words and goes into every detail of cleanliness and precaution against contamination. In these respects it does not differ materially from codes already reviewed in these columns governing the occupations of ice cream making and confectionery manufacturing. The question of adulteration is gone into at greater length, as bottlers' products offer peculiar temptations along this line. The Ohio Bottlers' Association lately asked for a code, and the one prepared meets with their full approbation.

"Rooster Day," June 6th, is made the subject of a novel proclamation by Commissioner Strode. After reviewing the fact that poultry raisers and farmers of Ohio suffer an approximate loss of \$1,500,000 annually in the production of eggs that are inferior in quality, due to fertilization, he recommends that on the day mentioned roosters be separated from the flocks, by decapitation or other means. Now that the hatching season is over, and the rooster no longer necessary, "it is better that we should enjoy his sweet morsel on our tables and bless him for having fulfilled his mission than to tolerate longer his presence among the flocks and thereby suffer the losses that ensue." The situation is set forth in "Whereas" form, and the 5,000,000 egg producers and consumers of Ohio are called upon to observe "Rooster Day." The proclamation is being given wide circulation throughout the state.

The bureau of dairies division announces a partial report for a period of six months, ending May 16. A total of 487 plant inspections were made, divided as follows: Creameries 105, cheese factories 19, condensaries 5, skimming stations 32, milk plants 144, dairies 111, ice cream manufacturing 57, miscellaneous 14. A total of 546 samples of milk and its products were taken by dairy inspectors, of which 388 were milk, 9 butter, 5 cream, 1 condensed milk, 2 cheese, 51 ice cream. A number of prosecutions of milk law violators were conducted, convictions being secured in all but one, which is still pending.

Inspection of dairies, of which mention was made last month, is being pursued with vigor. It is the intention of the bureau to revisit all dairies that were inspected last year and observe what has been the compliance with orders that were given. May was almost wholly taken up with this work and it will be continued throughout all of June.

Although the work of testing cream and butter-fat test scales has been under active way only since February, 102 scales were examined, of which 18 were condemned for repairs. Much satisfaction is noticeable by inspectors on the results of this work. Creamery men are anxious to have their scales tested in order that they may be placed on the right track. It is the friendly co-operation of the public which makes the entire work interesting.

Among the department's papers for the month is an able review of the history and present efficiency of the weights and measures bureau. Chief F. C. Albrecht has worked hand in hand with Commissioner Strode since the latter's appointment in 1911, and through their joint efforts many thousands

of dollars are being annually saved food consumers of Ohio. This state is now in the front rank in weights and measures regulation. The document aptly begins with quotations from the old Mosaic law. "Just balances, just weights, a just ephah, and a just hin shall ye have." "Thou shalt not have in thy bag divers weights, a great and a small. Thou shalt not have in thine house divers measures, a great and a small. But thou shalt have a perfect and just weight, a perfect and just measure shalt thou have."

Violations of narcotic laws have figured most prominently among the prosecutions of the month. On May 12, E. A. Moser, a Findlay druggist, was arrested, tried, convicted and sentenced to a fine of \$125 and 30 days in jail all within an hour. Dr. L. B. Smith, a Youngstown physician, has been brought to the Ohio penitentiary at Columbus to serve five years for selling cocaine.

Drug Inspector E. W. Harrington makes the startling statement that there are more dope fiends in Ohio than there are automobiles, one person in every 500 being addicted to the evil. In utterance which it is hoped can be used in full at another time, he shows the fearful nature of the problem with which the department has to deal.

Commissioner Strode has accepted an invitation to address the students and faculty of Northern Ohio University, Ada, O., June 25.

B. S. Bartlow, chief of the food division, addressed the senior class in the domestic science school of Ohio State University, Columbus, on May 30.

Chief Inspector of Weights and Measures F. C. Albrecht and his able assistant, H. C. Diegle, are in Washington, D. C., attending the National Convention of Inspectors of Weights and Measures.

CHANGE OF HEAD OFFICE.

ON AND after June 8, 1914, the head office of the J. Weller Company will be removed from Cincinnati, to Oak Harbor, Ohio.

We have not operated our Cincinnati factory, they say, for the past few years, all of our packing being done at our Oak Harbor and Greenville, Ohio, Leslie, Mich., and Clay, N. Y., plants, where we get our raw materials fresh from the fields. Recently we disposed of our Cincinnati factory and as our Oak Harbor, Ohio, plant is centrally located and our main center of manufacture, we are moving our head office there so that we may give closer personal attention to valued orders.

Oak Harbor is located on the Portage River, in the northern part of Ohio, about twenty-five miles from Toledo, in a very fertile and productive country for both vegetables and fruits. The tempering influence on the climate of Lake Erie, only a few miles away, and the fact that the farms are all deeply tilled insures good crops. We have never had a serious crop failure at this location in the twenty years we have been established there.

Besides moving our head office, we are very greatly enlarging the capacity of the Oak Harbor plant, on all of our lines, installing the most modern and sanitary equipment to be had. We are in a better position to serve our trade than ever before.

Please bear in mind the change in location of our head office and address your correspondence in the future to The J. Weller Co., Oak Harbor, Ohio.

COPPER IN TABLE CELERY.

The United States Department of Agriculture has found by analysis that much of the table celery marketed contains slight amounts of copper in the form of dried Bordeaux mixture. The use of the mixture is necessary in the case of celery growing in many sections, but it was found upon investigation that it is sometimes applied with faulty spraying apparatus which forms a stream instead of a spray or mist. The Department of Agriculture has issued a circular requesting that all spraying of celery plants with Bordeaux mixture be done with efficient apparatus working under high pressure, one hundred pounds or more, and it has also issued a warning to consumers to break open the bunches of celery and to wash and scrub the stalks thoroughly before eating them.

Evaporated Milk Unsweetened Milk

is milk from which a considerable portion of water has been evaporated and contains not less than seven and eight-tenths per cent (7.8%) of milk fat, and not less than twenty-five and five-tenths per cent (25.5%) of total solids.

W. Scott Matthews,
Dr. Walter S. Haines,
Thomas P. Sullivan,
Illinois State Food Standard
Commission.

The above standard for evaporated milk, promulgated and released this day by the State Standard Commission, becomes effective on all goods manufactured on and after July 1st, 1914, and on goods manufactured prior to that date this standard becomes effective January 1st, 1915.

W. Scott Matthews,
Commissioner.

May 27, 1914.

The finest preparation of its kind on the market
today is The Great Food Drink

Malt Marrow

Be sure that you ask for and get McAVOY'S.
The only MALT MARROW that there is.



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DEPARTMENTS: Food, Commercial, Medical, Milling and Baking.
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FOR USE OF MANUFACTURERS

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Soluble, Concentrated, Terpeneless

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Phosphates, Baking Powder
Materials, Epsom Salts

Pennsylvania Correspondence

(From Our Staff Correspondent.)

HARRISBURG, Pa., May 28.—Attention of the Legislative Commission which was named a year ago to investigate the cold storage business in Pennsylvania and report such changes as may be necessary to the next legislature, will probably be devoted more to the questions of periods of storage than anything else. Comparatively little fault has been found by those engaged in the business to the provisions for inspection and regulation. It was recognized that regulation was bound to come and the unfortunate thing about it was that both state authorities and people in the trade had to take what they could get. A number of places exist where the law does not work out and numerous complaints have been made about ambiguity of phrases. But the greatest objection of all was to the periods for storage. The fish period originally provided had to be changed by a bill passed after the approval of the law as it now stands and both state officials and cold storage men have been more or less hampered.

The places where clarification and common sense are needed will be pointed out to the commission when it resumes its meetings next month and there will be extended testimony given as to periods. The latter subject will be considered at length by the committee in the fall and decisions are not likely to be made until shortly before the legislature meets. Abundant time will thus be afforded for presenting the views of all concerned and of doing away with the just causes of complaint.

Under the plans of the commission the members contemplate inspection of a number of plants so that they will know some of the details of the business when the bill comes up for discussion in the next session. The fish industry of Philadelphia and Erie will receive much attention.

Agents of the State Dairy and Food Commissioner report that there is brisk entry of butter and eggs in most of the cold storage plants of the state and there is now general interest as to whether the entries this spring will equal those of last year. It happened that the first reports called for under the act of 1913 concerned the amount of foodstuffs in storage at the end of the summer and the quantity of butter and eggs caused much comment. The next report will probably be called for as of July 1 when the bulk of the butter and eggs will have been stored.

An interesting sidelight on the food business is furnished by the approval of State authorities of the proposal of W. Theo. Wittman, the poultry expert of the State Department of Agriculture, that June 1 be known as "rooster day" and that on that day the hatching season be ended and all roosters except those desired for breeding be sold or killed. The roosters which are considered worth keeping for breeding would then be penned up until warm weather is ended. It is argued by Mr. Wittman that there are too many roosters and that by keeping them from hens during the summer and early fall the danger of fertile eggs will be avoided. Annually thousands of dozens of eggs have to be thrown away because they are fertile and tend to spoil easily and the sterile egg is recognized as the best for the table, for cooking and for storage. State officials have approved of the suggestion, which has been spread broadcast, and various agricultural bodies have endorsed it.

Inspections of cold storage warehouses in the state this spring has shown them to be in good condition and there have been few if any objections to the manner in which the records are kept. The state is exercising a close supervision over the warehouses and the interstate shipments. One of the matters which is concerning the business and official ends is the expected decision on the constitutionality of the cold storage act, which is still being considered by the Dauphin county court.

One of the most remarkable cases of milk adulteration to come to the notice of the state authorities was discovered in Schuylkill county, where twenty per cent added water was reported in buttermilk. Owing to the increased demand for buttermilk larger quantities of it are being sold than ever known before and some one yielded to temptation in a manner that amazed even officials. As a general proposition the condition of the milk supply of the cities and boroughs of the state, as determined by the spring sampling of state agents, is declared by Commissioner James Foust to be better than

before. Instances of adulteration by water are growing less and disregard of state standards is now one of the bugbears of the dairymen. No cases of use of preservatives have been reported.

Over a score of prosecutions for the sale of "bleached" flour have been ordered in the state and more are expected to be started as a result of the sampling which has been in progress by agents of the commissioner in the cities of the state. It has been found that there are 100 brands of flour from other states sold in Pennsylvania, while its own brands run about 150 in number.

Men engaged in commercial orchard work have been writing to state officials about the activities of tree doctors, who have offered to treat trees with patent preparations to drive away scale and other parasites and it is likely that efforts to regulate such business will be made in the next legislature. The Pennsylvania fruit growing business is increasing rapidly, records of thousands of new trees being set out having been made here by state inspectors, and the state is now spending over a quarter million dollars in demonstrating methods of safe apple and other fruit culture. A card index is being made of all fruit growers, the number and variety of their trees and the amount of fruit they can furnish for markets.

The Department of Agriculture is preparing to supplement its recent bulletin on beef production by lectures at various fairs and gatherings. The state is making an effort to interest owners of timber lands from which trees have been cut and which has not been reforested and of run-down farms in the possibilities of grazing. Some of the counties have large districts which have been farmed with little success and which would involve heavy cost to build up and suggestions are being made that where tax rates are low that raising of steers for market be undertaken. In some sections practical steps for restoration of the beef raising industry have been undertaken with free advice from state experts.

AMERICAN CAN COMPANY THANKED.

At a business meeting of the National Cannery Association held recently at Washington, D. C., former President Fernald presented to Vice-president Henry W. Phelps of the American Can Company a beautifully engrossed and framed set of resolutions. This pleasant duty Mr. Fernald performed most eloquently and feelingly. The resolutions, which read as follows, were adopted at the Baltimore convention:

TO THE AMERICAN CAN COMPANY.

WHEREAS, The American Can Company has by an outlay of a large sum of money equipped the National Cannery Laboratory in the city of Washington; and

WHEREAS, The presentation to the canning industry of this valuable aid to the continued success thereof has been made with evident generosity and real purpose to better the standard of our products; therefore be it

Resolved, That we, the National Cannery Association, hereby extend our thanks to the American Can Company for this valuable laboratory equipment, and also for their financial and moral support to the other features of our work.

(Signed) BERT M. FERNALD, President.

CHAS. T. LEE, Chm. Resolution Com.

F. E. GORRELL, Secretary.

In his speech of acceptance Mr. Phelps expressed heartfelt appreciation on behalf of the American Can Co., President Wheeler, himself, and the other officers. He also spoke of his and their feeling of affection for the National Cannery Association, declaring that there is a closer community of interest existing between the canners and the American Can Co. than between any other class of customers with which the company does business. He referred to his long years of personal and business relations with many of the members of the canning industry, and of the bonds of friendship such early associations have created. The American Can Co.'s motives in aiding the association in establishing the laboratories were, he declared, solely for the advancement and good of the canning industry.

RUMFORD

The Wholesome

Baking Powder

A scientific preparation being the result of extended research by the celebrated chemist Prof. E. N. Horsford, for many years Prof. of Chemistry in Harvard University.

Dietetically speaking, Rumford is without fault; as a leavening agent it is perfect; as a keeper it has no superior.

Its Purity is Unsurpassed.



BUY

a whole Majestic Ham or Strip of Majestic Bacon and have the best breakfast of the year tomorrow.

Sulzberger's Majestic Hams and Bacon

are prepared from the choicest of young porkers, cured in the good old-fashioned way and smoked to perfection over slow-burning hickory wood fires.

Every Piece U. S. Government Inspected and Passed.

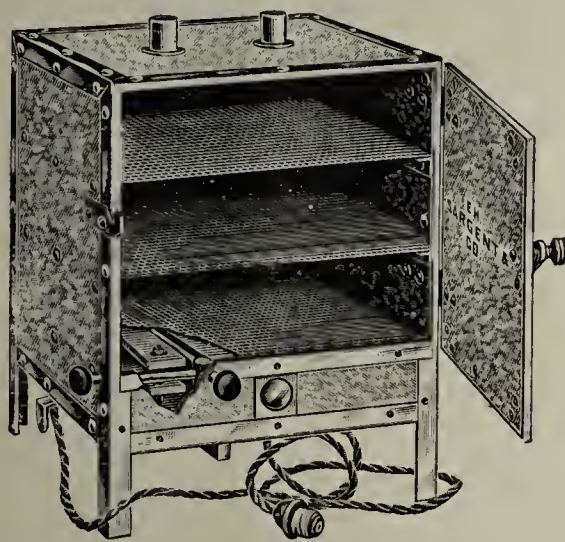
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Sulzberger & Sons Company
U. S. A.

Sargent's Electric Drying Oven

With Automatic Temperature Control

(Patented Jan. 6th, 1914.)



THE demand for a constant temperature drying oven at a moderate price has led us to put upon the market this desirable piece of apparatus. Electrically heated and automatically controlled, the oven may be set for any temperature between 70°C and 150°C, and is guaranteed to maintain it within 1°C.

Adapted for and used in food laboratories with excellent results.

PRICE complete with six-foot cord, plug, thermometer and directions for operating **\$25.00 net**

Descriptive pamphlet on application.

Our complete catalogues furnished upon request.

E. H. Sargent & Co.

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COOK

BOOK

This is the Cook Book that makes the food which makes the whole family happy.

Cottolene

—the shortening that insures digestible food. Makes light foods lighter.

— TRY THIS PIE CRUST —

(Written especially for the Cottolene Cook Book by Mrs. Lincoln)

Mix 1 scant half-level teaspoon salt with 1½ cups pastry flour. Chop in, with a knife, a scant half-cup of chilled Cottolene. When well cut together, mix in very gradually 3 tablespoons milk, mixing evenly. Do not knead with the hands. Sprinkle some flour on molding board, flour rolling pin, roll dough into rectangular shape, roll up, cut in two, stand one roll on end, pat it flat and roll to a round a little larger than the pie plate, cover plate and fill with pie material. Roll other half of paste in same way, making it ½-inch larger than plate, make several incisions in top crust, lay it loosely over pie, wet edge of lower crust and press the two together, marking with a fork. Marking keeps crust from puffing and helps to keep in the juice.

While you think of it, drop a postal for HOME HELPS, this FREE Cook Book, written by five of America's greatest cooking experts. It also tells, clearly, how to use Cottolene successfully in the recipes you have always used.

THE N.K. FAIRBANK COMPANY
CHICAGO

Utah Correspondence

(From Our Staff Correspondent)

SALT LAKE, Utah, May 27.—The short-weight butter question still occupies the center of the stage in Utah, the state dairy and food bureau having failed in a strong effort to have the butter manufacturers agree to pack full pounds. Inasmuch as the 15-ounce "pounds" that have been packed in the past are perfectly legal under this state's laws when so branded on the package, the department can do little. However, Willard Hansen, state dairy and food commissioner, plans to have a law introduced in the next legislature making illegal any package of butter that weighs less than 16 ounces, net. In the meantime, the department will base its cases for prosecution only on packages of butter that fall below the net weight branded on the package.

The Utah state law covering the packing of butter states that the butter package must be marked plainly as to the net weight. It is said that when the law was passed there was no thought of the butter men packing less than a pound. The attorney general of Utah held, however, that the law means that a package of butter weighing only 15 ounces is legal if the package is branded as containing "15 ounces net." This was early taken advantage of by the manufacturers and short-weight pounds became the rule rather than the exception. About two years ago the state dairy and food department officials called a meeting of butter manufacturers and after the matter was thoroughly threshed out, the butter men agreed to pack full pounds. Since then they have fallen away from the faith, one at a time, until within the last few months it has been almost impossible to find a package of creamery butter that weighed full 16 ounces. The butter men held this to be perfectly legal as their packages were marked to contain only 15 ounces.

Following the receipt of numerous complaints from consumers, Commissioner Hansen last month decided to call another meeting of butter men. He took the attitude that inasmuch as consumers always call for a pound of butter when they go to a store that the sale of packages containing less than a pound is illegal. The first meeting of the dairy and food bureau and the butter manufacturers was held April 29. At that meeting the manufacturers were not well represented but those present agreed to try and effect another agreement and sparred for time by asking that another meeting be called. Many of the smaller manufacturers declared their willingness to pack full pounds but said that unless all agreed they would not be able to do so.

The board agreed and on May 15 another meeting was held. At this meeting every important and most of the minor creameries and butter manufacturing establishments of the state were represented. The session lasted about eight hours but nothing was accomplished. The butter men had met previously and it was evident that they had agreed to oppose the department. They pleaded as an excuse for refusal to pack full pounds that all had large numbers of the 15 ounce cartons on hand. Commissioner Hansen said that while the manufacturers were not disobeying the law in a legal sense they were laying the retailers open to prosecution for selling packages weighing less than a pound when pounds of butter are called for by customers.

At the close of the meeting the manufacturers virtually defied the department to do its worst and declared that they intended to pursue the same policy as before. Public sentiment has been much stirred up against the butter men as a result of their attitude and the publicity given the question has fixed the situation so that there is little doubt that a law such as the state board proposes will be a popular one. In the meantime the inspectors of the state board are pursuing a policy of "watchful waiting" and expect to continue the seizures under the tentative policy outlined until the new law is passed.

The use of a score card in judging dairies having been found to produce excellent results and to enable the inspectors to keep a better watch on dairies that were violating the sanitary regulations, the same system has been adopted for the first time in connection with canning factories. Canning of fruits and vegetables is one of the most important industries in the state, tomato canning being especially important. From May 15 to May 30 asparagus canning is the canneries' principal work, peas from June 15 to 30 and later tomato canning. The tomato season begins about September

1 and lasts from six to eight weeks. There are about thirty factories in the state and each one of these will be paid a weekly visit by one of the inspectors. Proper equipment such as buildings, water supply, machinery, etc., and methods, which include sanitary conditions of grounds and buildings and the general quality of the products, will form the basis for the scoring. The state law gives the dairy and food commissioner power to close any cannery that he considers unfit to handle food products. Little trouble is expected, however, as Utah's canning factory conditions have always been found to compare with the best.

Included in the seizure this month by the state authorities, assisted by F. B. Raynor, United States food and drug inspector, with headquarters in Salt Lake City, was a seizure and condemnation of two carloads of California strawberries consigned to a pool of Salt Lake jobbers. Inspector Raynor found that the strawberries were inferior and reported the matter to the state dairy and food department. Heber C. Smith, chief deputy of the department, took a large number of samples from both cars and turned them over to Herman Harms, state chemist. The state chemist made an analysis and reported the fruit as "moldy and unfit for human food." Under the direction of state inspectors the two carloads were burned at the crematory. The entire shipment consisted of about 2,000 crates and it is estimated that the local jobbers lost a total deposit of approximately \$1,500.

Other cases in which the state bureau and Federal Inspector Raynor co-operated were alleged violations of the drug laws by substitution of inferior hair tonics for well known and standard articles and the mislabeling of liquors. Complaints in regard to barbers using inferior hair tonics when customers called for advertised tonics of known repute were sent to both the state and government inspectors during the first part of the month. Inspector Raynor investigated and found these complaints to be well based in a number of instances. On May 15, the deputy state commissioner mailed a circular letter to all barbers of the state quoting the "misbranded drug laws of Utah" and threatened prosecution in the event that any further infringement of the law was discovered. Subsequent investigation has shown that the barber shop owners have taken the warning. In connection with the liquor misbrandings, it was found that many saloonkeepers were selling California and other domestic wines and brandies as imported articles. Investigation by the government inspector showed that in all cases these liquors arrived in properly labeled containers and that the fault was with the retail liquor dealers. Several kegs of California blackberry cordial, labeled "imitation blackberry cordial and containing one-tenth of one per cent benzoate of soda and added syrup," were later sold over the bar or in bottles to customers as the best blackberry brandy. Domestic brandy was also sold as the imported Hennessy brandy. Following his usual custom of first giving proper warning, Commissioner Hansen mailed on May 21 to all liquor dealers the following letter:

"The complaints frequently received by this department need no confirmation that liquor dealers engaged principally in the retail trade are guilty of gross carelessness in the bottling and labeling of liquors taken from the original containers. On display in many saloon windows and evidences of this fact, rums, brandies, cordials and whiskies are frequently misbranded. No further warning will be given the trade but prosecutions will immediately follow the issuance of this warning. All liquors taken from the original containers and bottled must be labeled precisely the same as the original containers."

Willard Hansen, state dairy and food commissioner, has almost completely recovered from his recent illness which threatened to prove fatal, and as a result his friends all over the state are rejoicing. Mr. Hansen was seriously ill for many months and after undergoing an unsuccessful operation in a Salt Lake hospital went to the Mayo hospital in Rochester, Minn. He underwent an operation there that made a new man of him and he returned to Salt Lake May 12, feeling much better. He then went to his ranch in the northern part of the state and returned to the harness on May 24, feeling, he says, better than ever before.

In line with his policy to exercise a closer supervision over



OHIO STATE FAIR MODEL GROCERY STORE

Ohio's Fighter for Sanitary Conditions, S. E. Strode, Ohio State Food Commissioner, selects for Model Grocery the Sherer-Gillett Sanitary Grocery Store Fixtures.

Mr. Food Commissioner:—Lighten your task of educating the millions of consumers who want their food protected from contamination and dirt. Let us co-operate with you. Ask us for descriptive literature.

SHERER-GILLETT CO., 1707-1709 S. Clark St., CHICAGO, ILL.

State of Ohio
Office of Dairy and Food Commissioner
Columbus

SYLVANUS E. STRODE
COMMISSIONER
BENJ. F. GAYMAN
CHIEF INSPECTOR

Sept. 13-1913.

Mr. W. C. Sherer,
Sherer-Gillett Co.,
Chicago, Ill.

Dear Sir :—

I take this means of thanking you for the loan of two of your sanitary counters for our model grocery recently put on at the Ohio State Fair held here Sept. 1 to 5th. Our object was to teach in a forcible way the lessons of sanitation by contrasting insanitary conditions in a "bum" grocery alongside of this sanitary one. I find it a very effective method and thousands of Ohio citizens are becoming more discriminative in their purchases of food supplies and are insisting on greater cleanliness, which is insured by use of such sanitary counters as yours which allows inspection of grade and quality of supplies without exposure to contamination of dirt, flies and bacteria.

It would greatly lessen our labor in the direction of better and cleaner food if every grocery in Ohio could be equipped with sanitary counters similar to those which your company places on the market.

Very respectfully yours,

S. E. Strode
Commissioner.

NEAL
Three-Day
Treatment
at Home or
Institute



Removes cause

and overcomes the effects of the use of

DRINK or DRUGS

Synthetic, Tonic, Internal, Non-hazardous Method of Treatment — Positive Results without Injections, Distress or the Slightest Bad After Effects.

NEAL INSTITUTES IN 60 PRINCIPAL CITIES
Home Treatment Available Everywhere

Chicago Institute

is the largest institution of its kind in the world. Located in the restful quiet of the beautiful Drexel boulevard residential district, an ideal place to spend a few days readjusting oneself to return to social and business duties in perfectly NORMAL mental and physical condition with a loathing instead of a craving for liquor or drug.

SPECIAL TERMS TO EMPLOYERS

Write for Booklet No. 1.

NEAL INSTITUTE

811 E. 49th Street

CHICAGO

REMOVAL NOTICE

of HEAD OFFICE of
THE J. WELLER CO.
CINCINNATI, OHIO

On and after June 8th, 1914, our HEAD OFFICE will be removed from CINCINNATI to OAK HARBOR, OHIO, where our most central plant is located.

*From this date address
all correspondence to*

THE J. WELLER CO.
OAK HARBOR, OHIO

FACTORIES { Oak Harbor, Ohio
Greenville, Ohio
Leslie, Mich.
Clay, N. Y.

Salt Lake City's milk supply than ever before, Dr. Samuel G. Paul, city health commissioner, requested the appointment of Earnest Mohr as special milk inspector. The appointment was made by the city commission and Mr. Mohr will keep a watchful eye on all milk supply during the summer months. He is a graduate from the Utah Agricultural College and has made a specialty of dairying.

For the last month the Salt Lake City and other Utah cities' health departments have offered a reward of 10 cents a hundred for houseflies. The boys and girls of the state have busied themselves with their traps and swatters and many of them have made fairly good sums from their work. At the same time many millions of the flies have been destroyed and as it is estimated that the death of one pair of flies in May means the prevention of 125,000,000 later on, the campaign bids fair to materially reduce the pests in this state. The offer is good until June 15. Active in the fly campaign has been Mrs. Elizabeth Cook, Salt Lake City's policewoman. Mrs. Cook keeps a close watch on the sources of food supply.

On the front of the cannery score card, space is left for the following information; Name of factory, names of manager and owner, location, number of employes, average daily output and remarks of the inspector. The scoring will be 100 per cent for perfect conditions, 40 per cent being allowed for perfect equipment and 60 per cent for perfect methods. The score card in detail follows:

EQUIPMENT.		METHODS.	
	Perfect Score.		Perfect Score.
Suitable buildings.....	4½	Sanitary condition of grounds	2
Construction	2	Outside condition of buildings	6
Frame	1	Painted	3
Brick, concrete or cement	2½	New	3
Location	5	Old	2
For proper drainage	2½	Platform—	
Free from contaminating surroundings	2½	Floors free from dirt or filth	2
Interior construction..	6½	Interior conditions..	17
Floors—		If clean—	
Cement or asphalt..	3½	Floors	3
Lumber	2½	Walls	1
Tight—		Ceilings	1
Walls	1	Proper place for hanging aprons and wearing apparel after work	2
Ceilings	1	Clean and sanitary wash rooms for employes	2
Painted or white-washed	1	Soap and towels....	1
Light	2	Tobacco barred....	1
Ventilation	2	Condition of drain and disposal of drainage	3
Water	10	Food products properly sorted at belt or from tables....	3
Clean and pure....	6	Machinery	5½
Convenient	1	Sanitary condition..	2
Abundant	1	Convenience	1
Location & condition of supply—		Properly washed—	
Surface well.....	1	Hot water.....	2½
Spring	2	Cold water.....	½
City water	2	Utensils	5½
Flowing well	2	Proper material....	1
Machinery	8	Sanitary condition—	
Efficiency	2	Washed with	
Sufficiency	2	Hot water	1½
Arrangement	1	Cold water	½
Sanitary construction	2	If buckets are	
Durability	1	Nested	0
Utensils—		Not nested.....	1
Sufficiency	1	Condition of boxes used in hauling products to cannery	2
Toilets—		Employes	10
Location and equipment	1	General health	4
Total	40	Order	2
		Condition of aprons and clothes	1
		Sanitary handling of food products by	

employees	3
Toilets —	
Sanitary condition..	2
Food products	7
Clean	1
Sound	1½
Fresh	1
Ripe	1
Free from frost or rot	2½
Catsup—	
Condition of material from which product is made.....	3
Total	60

Grand total of equipment and methods for perfect scores is 100 per cent. If any exceptionally filthy condition is found, 25 per cent of the total score will be subtracted. If the water is exposed to dangerous contamination or there is evidence of the presence of contagious disease among employes, the score shall be zero.

LESS COPPER IN CELERY.

The table celery which has been coming into the market recently shows a distinct improvement over last year's in its comparative freedom from copper, according to reports received by the U. S. Department of Agriculture. Copper on celery is found in the form of dried Bordeaux mixture (lime and copper sulphate) which is used extensively to prevent the destruction of the crop by blight. The use of salts of copper in food products has been pronounced by the Referee Board injurious to the health, but on the other hand, it has been found practically impossible to bring celery to market in good condition unless the plants have been sprayed at certain periods of growth with Bordeaux mixture.

To meet this difficulty the Department of Agriculture issued a warning to growers last year, prescribing the method of spraying and urging housewives to be particularly careful in washing all celery before using it. The effect of this warning is now becoming apparent, for the celery is reaching the market in better condition than in the past.

In investigating the question the department discovered that the presence of copper was due to faulty spraying apparatus, usually the employment of knapsack sprayers instead of power outfits. These do not operate at a sufficiently high pressure to make a fine spray or mist. As a result the Bordeaux mixture is applied in a number of fine streams and these, instead of merely settling on the leaves, as a mist would do, run down between the stalks. Thus the mixture accumulates at the base of the plant and is not washed out by the rain. This sometimes gives a blue-green appearance to the celery, which many people imagine to be due to Paris green; as a matter of fact the green tint is that of a copper stained lime.

When spraying is done properly an efficient apparatus is used, working under high pressure—a hundred pounds or more. Spraying is stopped when the leaves are covered with fine drops and before these begin to run down the stalks and accumulate at the base of the plant. The leaves, it is pointed out, should not be eaten under any circumstances.

However careful the grower may be in his spraying, the consumer must also do his part. The bunches of celery should be broken open and the stalks washed and scrubbed thoroughly before they are eaten. This chemical analysis shows, will remove nearly all of the copper found in dried Bordeaux mixture from the stalks and eliminate danger of any bad effects to the consumer.

10% More for Your Money

Quaker Oats is now put up also in a 25-cent size, nearly three times as large as the 10-cent size. By saving in packing it offers you 10 per cent more for your money. See how long it lasts.



Serve Quaker in Big Dishes

If You Would Know Its Vim-Producing Power

Quaker Oats is the utmost in energy food. It should multiply vim, create bubbling vitality, make one "feel his oats."

But a little dish, once daily, doesn't go far enough. Active, growing children need three times that much.

Serve Quaker in big dishes. Make it the morning meal. Then you will know the fullness of its vim-producing power.

And millions of grown-ups need a month of such breakfasts—to put them at their best. Nobody doubts the energy that's there, but few folks get enough.

Quaker Oats

The Luscious Energy Food

In Quaker Oats you get the flavor found only in rich, plump grains. It is made to tempt children to eat an abundance. They will if you put it before them.

In Quaker we use but the cream of the oats. We get but ten pounds from a bushel. The result is a delicacy—large, luscious flakes with a fascinating taste and aroma.

You always get this when you order Quaker, and it costs you no extra price.

Serve Quaker Oats in large dishes. Small servings are not sufficient to show in full its vim-producing power.

10c and 25c per Package

Except in far West and South

The Quaker Oats Company



KINGSFORD'S CORN STARCH

THAT old standby, Kingsford's Corn Starch, is very new-fashioned indeed since housewives are looking for purity in food products, nutritive value and moderate cost.

Owing to its extreme delicacy and purity, Kingsford's takes the full flavor of any kind of seasoning. With it can be made dozens of dainty desserts and appetizing dishes that give variety to the home table.

You can have no idea of the possibilities of Kingsford's if you have been using ordinary Corn Starches and inferior substitutes, which are at the same price as Kingsford's.

See that you are given the original and genuine Kingsford's Corn Starch of Oswego; prepared by the careful process that has made Kingsford's the finest Corn Starch for over sixty years.

Send your name today for Cook Book 00, that tells all about making dainty desserts—and gives 168 recipes for all kinds of dishes.

National Starch Company
NEW YORK

Cotton Seed Meal; a Substitute for Meat

FOOD PRODUCTS MADE FROM THIS MEAL CONTAIN
MUCH DIGESTIBLE, FLESH FORMING NUTRIENTS

NOT many years ago, cottonseeds rotted at the gin, or polluted streams, and were an intolerable nuisance to all concerned. The enormous wealth of cottonseed oil, oil cake, cottonseed meal and hulls, was undreamed of. Cottonseed oil came on the market, and as the processes of manufacture and refining became improved, the oil was used as an adulterant of edible oils of higher price. "Summer yellow" oil was exported to Italy and returned to this country as olive oil. Gradually the prejudice against this product of the cottonseed wore away, and now its presence in lard compounds, cooking oils and table oils is boldly proclaimed and aggressively advertised.

Cottonseed meal is universally used as a food for stock, especially cattle, and the hulls sell for \$12 to \$15 per ton. Taken together the products of the once despised cottonseed form one of the most important sources of wealth of the South. It is even claimed that cotton can be profitably grown for the seed alone.

Cottonseed meal has been used as a human food to some extent for a number of years in Texas and other Southern states. Its use is not confined to those classes who are too poor to buy meat. Mr. G. A. Baumgarten, of Schulenberg, Texas, makes bread out of wheat flour and cottonseed meal and has been using it in his home for a number of years. The bakery of Mrs. McCarty in Ennis, Texas, has featured cottonseed meal bakery products and cottonseed flour has been extensively advertised by Mr. J. W. Allison, of the same place.

Cottonseed meal contains a larger percentage of protein—the principal constituent of meal—than any other vegetable product grown. Cottonseed flour, the name under which cottonseed meal is sold for human consumption, is choice meal practically free from hulls and is an almost impalpable powder. Cottonseed flour sold by Mr. Baumgarten is put through a roller mill. It is bright yellow in color, free from any trace of rancidity, and possessing a sweet odor.

Cottonseed flour contains about four times as much protein—flesh forming food—as eggs, and three times as much as beef loin. It is richer in protein than any other food product. However, it is undesirable and unsafe to use cottonseed meal for human food without dilution of some sort, and it is best used in a mixture with corn meal or wheat flour. We recommend a mixture containing 20% cottonseed meal. Cottonseed flour food products made in this proportion contain from one-third less to one-third more protein than eggs, depending upon the amount of water in the cooked product.

Digestion experiments with men, recently made by the writer, and reported in Bulletin 163 of the Texas Agricultural Experiment Station, show that the protein of cottonseed meal and flour is equally as digestible as that of peas and beans, nine-tenths as digestible as that of wheat and other cereals, and eight-tenths as digestible as that of meat. The digestibility of the fat is very high, but that of the carbohydrates is low. However, since cottonseed meal is a substitute for

meat, and as carbohydrates are cheap and plentiful in products of wheat, corn and rice, this is immaterial.

These are the first experiments on record in which human beings were used in digestion trials with cottonseed meal. The three subjects lived six days each on a diet of cottonseed meal-corn bread, milk and butter, and the results show that none of them lost an ounce of flesh during the experiments.

Cottonseed meal food products made from one part cottonseed meal or flour to four parts wheat flour contain from one-third less to one-half more *digestible* flesh forming nutrients than eggs.

"But," you inquire, "suppose cottonseed meal is rich in protein and that protein is highly digestible, who could eat the stuff?"

Studies were made to determine the palatability of cottonseed meal food products. It was found that breads and cakes made of one part cottonseed meal or flour to four parts corn meal or wheat flour are equally as palatable as straight corn meal or wheat flour food products. In the palatability tests all of the cooked products were eaten and relished by a three year old child, who has never yet failed to make it known when he disliked any article of food offered him. Since he could not have had any preconceived ideas about cottonseed meal as a human food, this evidence is of some value.

A spiced cake made with cottonseed meal could be eaten by the most critical, and he would never know he was eating "that cattle food" unless he were told. Biscuit, muffins, bread and hot-cakes made from the cottonseed meal mixture have a slightly changed flavor, which is not at all disagreeable. None of the cottonseed meal food products cooked for the writer and eaten by him daily for two weeks had the slightest cottonseed meal flavor.

Compared with the cost of nutrients in meat and eggs cottonseed meal is, both relatively and actually, enormously cheaper than those more commonly used foods. Cottonseed meal costs about \$32 per ton. Assuming a loss of one-third in sifting (with cottonseed flour there is no loss in sifting) the cost of a pound of digestible protein would be five cents. The cost per pound of protein in eggs and round steak at the moderate prices of 20c per dozen and 15c per pound, would be \$1.06 and \$0.73 respectively. A pound of digestible protein is 21 times as expensive in eggs and 15 times as expensive in meat as it is in cottonseed meal.

The high cost of nutrients in animal foods will not prevent people from buying and eating them even when such a cheap substitute is available. The best we can expect, and all we should expect, in the present state of knowledge concerning the use of cottonseed meal as a human food is that cottonseed meal be used as a partial substitute for meat. It should be remembered that while cottonseed meal has proved harmless to nearly all classes of live stock, it sometimes causes the death of pigs when fed in large amounts. We have at present no knowledge of its effect on human beings and for that reason we should be cautious in its use. In the use of cottonseed meal as recommended by us, i. e.

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diluted with four parts of wheat flour or corn meal, there will be little danger of an adult male eating more than two ounces of cottonseed meal daily. We believe this is a safe amount to use.

The application of ordinary cooking recipes to the mixture of cottonseed meal and corn meal or wheat flour, was tested. One of the tested recipes is given below:

Cottonseed Meal Corn Cakes—Cottonseed meal, $\frac{1}{3}$ cup; corn meal, $1\frac{1}{3}$ cups; eggs, 2; lard, $1\frac{1}{2}$ teaspoonful. Mix corn meal and cottonseed meal. Make into a batter with water and cook as for ordinary corn or wheat cakes. Serve with syrup and butter.

The above, and all other recipes tested, differed from

ordinary recipes only in the presence of cottonseed meal. It seems safe to propose the following rule:

In preparing cottonseed meal bread and cakes, use one part cottonseed meal to four parts corn meal or wheat flour, and use the same recipes commonly used for corn and wheat breads and cakes.

The available supply of cottonseed meal is enormous, and its production unlike that of beef, is on the increase. If every cow, pig, sheep and chicken were suddenly stricken with a terrible scourge and were wiped out of existence in a single day, we would not be compelled to resort to horses, dogs and sparrows for our supply of protein. We could live and live much more cheaply on a food supply that would be immediately available and which we have always had with us: Cottonseed meal.

Program of the Eighth Annual Convention of the National Wholesale Grocers' Association

TO BE HELD AT MINNEAPOLIS, MINN., HOTEL
RADISSON, JUNE 15TH TO JUNE 19TH, 1914, INCLUSIVE

MONDAY, JUNE 15, 1914.

11:00 A. M. Meeting of Executive Committee.

TUESDAY, JUNE 16, 1914.

11:00 A. M. Meeting of Board of Directors.

WEDNESDAY, JUNE 17, 1914.

9:30 A. M. Convention called to order by President Oscar B. McGlasson.

Invocation: Rev. James E. Freeman.

Address of Welcome: Hon. Wallace C. Nye, Mayor, Minneapolis.

Response on Behalf of Association: President Oscar B. McGlasson.

Address: His Excellency, Adolph O. Eberhart, Governor of Minnesota.

Response on Behalf of Association: Mr. W. C. McConaughy, Vice President.

Roll Call.

Reading of Constitution and By-Laws.

Reading of Minutes of Last Meeting.

Reading of Communications.

Announcements of Special Committees:

Auditing,

Credentials,

Program,

Arrangement,

Press,

Nominating.

REPORTS OF OFFICERS.

President's Address.

First Vice President.

Second Vice President.

Third Vice President.

Fourth Vice President.

Fifth Vice President.

Treasurer.

Secretary.

Executive Committee.

Board of Directors.

Report of Counsel.

Address: Mr. Joseph Chapman, Vice President, Northwestern National Bank, Minneapolis, Minn.

Address: Mr. A. N. Mulliken, Vice President, Chamber of Commerce of the United States.

Address: Hon. F. C. Stevens, Congressman, Minnesota.

3:00 P. M. Entertainment, Local Committee.

THURSDAY, JUNE 18, 1914.

9:30 A. M. Convention called to order.

Report: Arbitration Committee, Mr. W. B. Timms, Chairman.

Address: Mr. Louis Runkel, President, American Specialty Manufacturers' Association.

Report: Pure Food and Legislative Committee, Mr. Theo F. Whitmarsh, Chairman.

Report: Sub-Committee, Mr. Fred R. Drake, Chairman.

Address: Hon. Joel G. Winkjer, Food Commissioner, Minnesota.

Report: Membership Committee, Mr. Joseph W. Bragdon, Chairman.

Address: Hon. James Hamilton Lewis, U. S. Senator, Illinois.

Report: Purchase Discount Committee, Mr. Robert J. Raulston, Chairman.

Report: By-Laws and Constitution Committee, Mr. Douglas H. Bethard, Chairman.

Address: Hon. Franklin MacVeagh, Ex-Secretary of the Treasury.

Report: Ways and Means Committee, Mr. Guy W. Roush, Chairman.

Address: Mr. L. V. D. Cameron, President, National Association, Brokers in Refined Sugar.

Report: Publicity Canned Goods Committee, Mr. Robert J. Roulston, Acting Chairman.

Report: Uniform Tariff Committee, Mr. W. F. Bode, Chairman.

Report: Contract Committee, Mr. Samuel B. Steele, Chairman.

Address: Mr. H. F. Schwab, President, National Association Retail Grocers.



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3:00 P. M. Entertainment, Local Committee.

7:00 P. M. Annual Subscription Dinner—Hotel Radisson.

FRIDAY, JUNE 19, 1914.

9:30 A. M. Convention called to order.

Report: Canners' Conference Committee, Mr. George B. Wason, Chairman.

Address: Mr. W. C. Leitsch, President, National Canners' Association.

Report: Bill of Lading Committee, Mr. J. A. McAleer, Chairman.

Address: Mr. John A. Green, Secretary, National Association of Retail Grocers.

Report: General Publicity Committee, Mr. Howard Humphreys, Chairman.

Address: Mr. Forrest Crissey, Feature Writer, Saturday Evening Post.

Report: Better Containers Committee, Mr. T. S. Vallette, Chairman.

Address: Professor E. F. Ladd, Food Commissioner, North Dakota.

Report: Chamber of Commerce of the U. S. Committee, Mr. Fred R. Drake.

Address: Dr. S. W. Stratton, Chief, Bureau of Standards, Washington, D. C.

Report: Cost System Committee, Mr. B. B. Cushman, Acting Chairman.

Address: Mr. Ed. E. Sheasgreen, President, Standard Cost Finding Service Co.

Report: Economy Conference Committee, Mr. George E. Lichty, Chairman.

Report: Tobacco Containers Committee, Mr. Douglas H. Bothard, Chairman.

Address: Mr. Richard Dallas, President, National Canned Goods and Dried Fruit Brokers' Association.

Report: Resolution Committee.

Report of Special Committee: Auditing, Credentials, Press and Nominating.

Unfinished Business.

New Business.

Election of Officers.

Election of Directors.

Appointment Executive Committee.

Discussion of Place for Holding Next Annual Meeting.

ADJOURNMENT.

Special arrangements for those desiring to make a trip to Yellowstone National Park and National Glacier Park.

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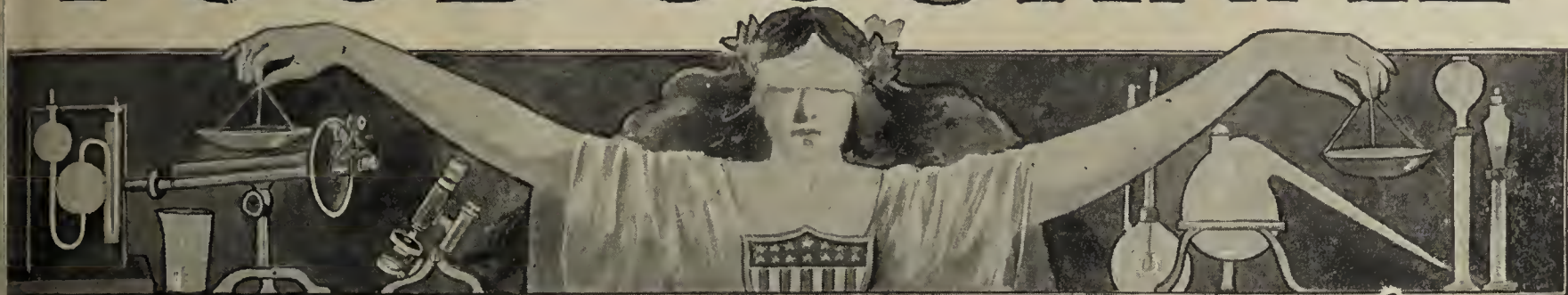
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THE AMERICAN FOOD JOURNAL



VOLUME NINE
NUMBER SEVEN

Chicago, July, 1914

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The ownership of The American Food Journal is vested solely in the officers of the company. No person, firm or corporation, either directly or indirectly connected with the business it represents, has any share in its ownership or voice in shaping its policy which has in view at all times the best interests of the field it serves. It aims to discuss all subjects fairly, and to furnish its readers information concerning the progress and development of the food industries. It will answer any questions concerning the business to the best of its ability, and it asks its readers in all parts of the world to aid it with inquiries and suggestions, to which it will give prompt and earnest consideration.

VOLUME IX.

JULY, 1914.

NUMBER 7.

A Reciprocal Courtesy of Great Importance

FOR years past it has been the uniform practice of state and national organizations composed of members engaged in the manufacture and distribution of food products to recognize the importance of the views and attitude of food officials toward their commercial and industrial enterprises. No convention program has been considered complete that did not include among the speakers some prominent state or national food control executive. Wholesale grocers, retail grocers, specialty manufacturers, canners, coffee roasters, extract manufacturers and the staff of other organizations which hold annual conventions all have invited the food men to express themselves in their trade conferences in order that they might keep themselves informed of the official viewpoint on questions so important to the successful conduct and financial prosperity of their business.

It is a cause for much gratification on the part of THE AMERICAN FOOD JOURNAL that this year the Association of American Dairy, Food and Drug Officials has included in its program for the July convention in Portland, Maine, a Manufacturers' Day. On July 15 the food control officials of the United States, national and state, will have presented to them the manufacturers' viewpoint on a comprehensive list of subjects having to do with food control work and the relation of manufacturer and distributor to laws and the officials who execute them.

It is certainly an entirely proper thing that the American dairy, food and drug officials in their own convention should hear the manufacturers' side of some of the unsolved problems that are being agitated as subjects for further legislation and restrictive rulings. It is only by frank and free discussion that effective co-operation so necessary to the best results can be obtained, and giving the manufacturers a chance to be heard is a long step toward a more sympathetic appreciation of the problems each interest has to solve in adjusting itself to new laws and changing demands in the food control work in order to

secure purer products, under more sanitary conditions.

Co-operation in order to be most resultful must be all-comprehensive. Food officials may understand each other perfectly and co-operate completely among themselves. Manufacturers may do the same. But unless these two factors get together and consult and co-operate with each other there is liable to be continuous avoidable friction, and the good ends toward which each is working be greatly retarded because of a simple lack of appreciation of the peculiar phases of a condition which confronts each separate interest having to do with the situation.

THE AMERICAN FOOD JOURNAL has always believed in and advocated a closer relationship and co-operative spirit between food and drug control officials and the commercial interests involved in food production and distribution, and this Manufacturers' Day at the coming convention is the embodiment of what we believe is the right course to pursue in order to bring about the co-operation necessary.

Consultation first and decision afterwards is the correct course to pursue when vexatious questions of policy come up. Too often in the past it has been decision first and consultation afterwards when it was shown that injustice was being done to commercial interests in making or changing regulations. In several notable instances food officials have found it necessary to modify or postpone the enforcement of rules and regulations promulgated without due consideration of the injurious effect they would have on the manufacturers. These cases could be avoided if proper consideration were first given to a presentation of their case by the affected interests.

Manufacturers' Day is certainly a Reciprocal Courtesy of Big Import, as the heading to this article states, and we are glad to note the increasingly progressive and broad-minded attitude state and national officials are taking in this matter. We hope that no future convention of the dairy, food and drug officials will fail to give the manufacturers their day. The officials need it quite as much as the manufacturers.

FOOD STANDARDS COMMITTEE CONFERENCE IMPORTANT.

ANOTHER special feature of the work of the convention of the American Association of Dairy, Food and Drug Officials is the conference that will be had by the national and state officials on the important and very live topic of uniform food standards.

There is at the present time a very considerable amount of agitation on this subject, and the need is being urged on every hand for regulation covering the matter. It is being recognized as increasingly difficult to determine what are and what are not standards in the purview of the law, and the lack of definite pronouncement on the subject is a handicap both to the manufacturer who desires to produce standard products and the official who wishes to do his duty in enforcing the law in reference to the sale of goods "up to grade."

Yet there is probably no more difficult task confronted by food officials as well as distributors than to arrive at a decision as to what are proper standards to demand for given products.

The official's premier duty is to see that any standard which may be adopted for a given product shall insure a result combining purity, wholesomeness and commensurate nutritive value. On the other hand, the manufacturers must meet the demands of varying classes of trade demanding products of a considerable range in monetary values.

The close commercial relations between states make it imperative that there be the strictest uniformity in adopted food standards. To have different standards in different states and lack of uniformity between requirements of state and national rulings is but to create a chaotic condition that would cause endless trouble for everyone concerned.

This has been demonstrated sufficiently in numerous cases of differing specifications of our state food laws in defining commodities and permitted or prohibited ingredients.

It is greatly to be hoped that the conference of officials having under their jurisdiction the creation of food and drug standards shall agree positively upon at least one point, and that is that, whatever the standards as ultimately adopted may be, they shall in every case be uniform. Also that the rule of reason shall obtain in naming standards, so that radical and arbitrary requirements may not be demanded which shall work undue hardship on manufacturers; also that requirements shall not be promulgated which might completely revolutionize trade practices and at the same time deprive a large class of consumers, who are not pecuniarily able to buy the more expensive products, of the thoroughly pure and wholesome substitutes now so largely manufactured.

It is conceded that intelligently defined food standards are a positive necessity and will be welcomed by officials, producers and the public. That they be reasonable in their requirements and uniform throughout the country are the two prime requisites in creating the standards, and these features are just the ones that will be furthered by the exhaustive consideration of the subject which is to be had at the convention.

We sincerely trust that after the conference of officials make the standards that they will be adopted universally by the Government and all the states.

COURT DECISIONS FAVOR OUR ATTITUDE.

EVER since the pure food law went into effect in 1906, there has been much activity in official circles designed to insure pure food for the people of the United States. That they might attain this end some state and national officials have felt impelled to resort to the courts in order to secure authoritative rulings covering points on which the food manufacturers and the food officials found their positions irreconcilable.

The American Food Journal in several conspicuous instances has found it necessary, in order to be true to its honest judgment and convictions, to take a stand in direct opposition to that for which some food officials contended. We refer to such cases as those involving bleached flour, corn syrup, Coca-Cola, etc., all of which were initiated under the Wiley regime. In each of these cases we believed the prosecution to have taken an untenable position, and one that was assumed too hastily, without giving due weight to all of the phases of the subject involved.

As the courts have handed down their decisions in the various trials (the latest being that of the Appellate Court in the Coca-Cola case, as published in this issue of this magazine) it has been a cause for increasing gratification on our part that, without an exception the opinions have been in line with the stand we have taken and persistently and consistently advocated.

The American Food Journal individually has had nothing to gain or lose by its attitude in these cases but we have at all times fearlessly and without favor given expression to the opinions we believed right.

It has always been clear to us that the benefit to consumer to be gained through the insistence of officials that the viewpoint of the Government be adopted by the public, was not always apparent. On the other hand the effect of such insistence upon the manufacturers was too often simply to involve them in the heavy expense of defending themselves in court in controversies which might have been avoided had a less arbitrary attitude been assumed by the Government, and had there been a greater willingness to consult frankly with the manufacturers.

Without doubt there has been on the part of some food officials at times too much of a disposition to disregard the commercial difficulties involved when demanding that radical changes be made in the manufacture of food products. An uncompromising order to forthwith abolish long established methods and previously accepted ingredients without intelligent recognition of the difficulties in the way of carrying out the orders, could not have other effect than to arouse the antagonism of the commercial interests affected. The when the results of changes were at best of debatable benefit, the injustice became even more pronounced.

For these reasons The American Food Journal has taken the position it has in the various cases previously referred to. We want to see attained as near perfection as is possible in this matter of pure food, but we also recognize that in striving for this worthy end we must use good reason and sound sense, and apply constructive and not destructive measures.

The American Food Journal has stood virtually alone in its attitude on these cases, and we have been subjected to considerable criticism from radical sources; however, the court decisions have vindicated our position and it is only human nature for us to feel exceedingly gratified over the outcome.

THE LAST WORD ON BENZOATE OF SODA.

THE result of investigations by the Imperial (German) Board of Health on benzoate of soda set forth in Vol. XLV, *Arbeiten aus dem kaiserlichen gesundheitsamte*, page 425, December 19, 1913, ought to set at rest forever the question of the practical uselessness of sodium benzoate. The investigations were carried out by three prominent members of the staff, Dr. Rost, Dr. Franz and Councillor Weitzel, and deal with the subject of the action of benzoic acid and sodium benzoate on the animal organism.

Dogs and rabbits were employed in the experiments because they represent two types of animals which differ from man only through the greater preference for an animal diet on the one hand, and a vegetable diet on the other. The behavior of man lies between the two and the conclusions drawn from the studies of the metabolism of the two classes of animals would undoubtedly apply to the human animal. In the dog experiments, puppies were frequently employed, and the observations on gradually increasing doses of benzoate were carried out through the growth of the animals. In all cases relatively large doses were given to these dogs, and these were *intentionally* carried to the point where some harmful effect was found. It appears that up to 1 gram, per kilogram of body weight, one-tenth of one per cent of the weight of the animal, these doses of benzoate had no action whatever, either on the growth, development, appetite or general condition of the dogs. When greatly increased doses were given of course various symptoms began to appear. Generally speaking it is found, in such cases, that the same results occurred as would have been occasioned by the same quantities of common salt.

If these relations are applied to man it appears that daily amounts of benzoate, running up to 1.6 ounces per day for a man of 100 pounds, would have to be administered through months to show any possible action, and there is no evidence that any result would appear then.

It should be noted here that a man would have to consume 160 eight-ounce bottles of ketchup preserved with one-tenth of one per cent of benzoate of soda to ingest 1.6 ounces of the benzoate.

The 1 gram per kilogram per day dose was the smallest quantity which seemed to have any action on the animals, and the authors conclude that any amount smaller than this might be given through indefinitely long periods. With most of the dogs larger amounts, 1.5 grams per kilogram of weight, for example, had to be given to bring harmful action.

In the case of rabbits the doses of benzoate required to exhibit some harmful action were about 50 per cent higher than the dogs. Rabbits seem to have a greater capacity for furnishing glycocholic acid and combining it with benzoic acid than have dogs, and the whole question appears to hang on this. In man the situation is midway between that of the animals and the excretion of the product formed, hippuric acid, is extremely slight in all cases. The excretion is rapid and even in large amounts without action of any kind on the kidneys. There is no retention in the body as was sometimes asserted, although without warrant, some years ago.

These long studies of the German Imperial Board of Health confirm the findings of other investigators

as to the extreme lack in harmful effects of benzoate administration. It is safe to say that salt, and many other common things, if administered in the same large quantities would be found as harmful, possibly more so. They show in a final and authoritative way that such small quantities as have significance in the preservation of food are so far below the possible toxic quantities as to merit no further attention from that point of view.

NATIONAL WHOLESALE GROCERS MEET.

THE eighth annual meeting of the National Wholesale Grocers' Association was held in Minneapolis, June 17th, 18th, and 19th. The meeting was unusually well attended and subjects of vital importance to the trade were threshed out.

The report of the Pure Food and Legislative Committee emphasized the work done to secure uniform food legislation; commends the fairness of state legislation in conforming state measures to the National Law, and deprecates the fact that all state legislatures have not passed the National Net Weight Law. The report calls attention to the fact that the Agricultural Appropriation Bill for the next fiscal year makes an appropriation for the investigation of the chemical and physical decisions applicable to American food products in foreign countries, and also for the inspection of such products before shipment when desired by American exporters.

Attention is directed to several bills pending before Congress which seek to amend the National Food and Drugs Act, and to numerous bills in the various State Legislatures which seek to amend state food laws.

The report of Dana T. Ackerly, counsel for the Association, described in detail the legal work of the association and the service performed before various legislative and regulatory committees.

IN THE INTEREST OF CO-OPERATION.

Dr. J. S. Abbott, formerly Food Commissioner of Texas, but now chemist in charge of State co-operative food and drug control for the United States Government, was in Chicago the past week discussing the details of co-operation work with Commissioner Matthews of Illinois.

Dr. Abbott is visiting all the State Food and Drug Commissioners and his stop in Chicago was the end of this, his first trip for the Government in the interest of co-operation. He is now on his way back to Washington. On this trip he has visited with the food and drug officials of the States of Kentucky, Indiana, Missouri, Texas, Oklahoma, Kansas, Nebraska, Iowa, South Dakota, North Dakota, Minnesota, Wisconsin and Illinois.

Dr. Abbott reports that all state officials are enthusiastic and optimistic in regard to co-operation with the Government in enforcing the State and National Food and Drug Laws. As a result of the co-operative work, Dr. Abbott expects that there will be better team work, less lost motion.

Owing to lack of space it was necessary to omit some of our important correspondence.

Official Program for Eighteenth Annual Convention of Association of American Dairy, Food and Drug Officials

To Be Held at Portland, Maine, July 13-14-15-16-17, 1914.

IT IS no reflection on the previous conventions of the Association of American Dairy, Food and Drug Officials to say that the program for the eighteenth annual meeting promises a convention on the broadest and most comprehensive lines ever attempted. On the contrary, it would be a discreditable reflection if that body of officials did not each year mark growth and progress which place the association on a higher and more useful plane with each passing year.

All indications are that the coming convention, which will be held July 13-17 at Portland, Maine, will be attended by more delegates and interested parties than has been the case at any convention heretofore held.

A part of and yet distinctive from each other are two sections incorporated in the general association, comprising in Section "A" the organization composed of a membership exclusively of state food and dairy executives, and Section "B," which is the Association of Official Food and Drug Chemists. We thus have a convention that is literally "three in one" whose parts of diversified and yet allied interests enable it to cover most comprehensively the subjects of pure foods and food control work.

The afternoons of July 14, 15 and 16 are occupied with sessions of Section A and B, these being held simultaneously, while July 13, 17 and 18 and the forenoons of the intervening days are devoted to sessions of the Association of American Dairy, Food and Drug Officials as a whole.

An innovation this year at the convention will be Manufacturers' Day, as July 17 has been designated. The program for the entire day, both morning and afternoon sessions, is to be made up of short addresses by various manufacturing interests, it being the purpose of the members of the association to in this way secure a comprehensive exposition of the commercial views on various vital phases of food control.

Headquarters for the association at Portland will be at Congress Square Hotel.

Meetings of the association will be held at the City Hall, located within three minutes' walk of the Hotel.

It is expected that a considerable delegation to the convention will go from Chicago, and Mr. John Newman, Assistant Illinois State Food Commissioner, has taken considerable pains to look up rates and itineraries from this point. While there are no reduced rates especially granted by the transportation companies for delegates to the convention, the regular special summer excursion rates given by all lines are very moderate. The cheapest rate is that limited to 30 days and requires that the party purchasing it make the trip going and returning via exactly the same route. At slightly advanced fares there may be purchased tickets of longer duration and permitting a variation of route, or a "circle tour," going one way and returning another. The majority of people when taking a trip of the length involved between Chicago and Portland, Maine, will wish to make it one of pleasure and sightseeing as well as professional duty, and the scenic advantages to be gained via the water route

will in all probability make it the favorite over all-rail trip.

Mr. John B. Newman, Assistant Illinois State Food Commissioner, gathered the following data relative to rates and routes for the benefit of delegates and visitors going to the Portland convention. The route indicated appealed most to Mr. Newman as embracing the greatest attractions of both rail and water transportation. The itinerary suggested by Mr. Newman for the trip is as follows:

Leave Chicago Wednesday, July 8, 9:30 a. m., arriving in Detroit at 3:55 p. m. Board the boat at Detroit, which leaves at 5 p. m., giving a beautiful afternoon ride down the river and an all night ride on Lake Erie, arriving at Buffalo the morning of Thursday, July 9, at 9 o'clock and at Niagara Falls at 10 a. m.

The trip from Detroit to Buffalo will be made on the magnificent steamer *City of Detroit III*, than which there is no finer on the lakes. It is a splendid new vessel, palatial and luxurious, and one of the largest side-wheel steamers in the world. Its dimensions are from stern to stern over all, 500 feet, while in beam it is 100 feet. At the stem it has a depth of 29 feet 3 inches and at the stern 25 feet 3 inches. There are 600 staterooms and 50 parlors. For speed and seaworthiness the *City of Detroit III* is unsurpassed, and the steamer is equipped with every modern convenience designed for the comfort and safety of its passengers. Mr. Newman has reserved 40 staterooms for the Chicago party.

Those wishing staterooms must notify Mr. Newman and send payment for same to reach him not later than July 3, as July and August are the months of heavy travel and all reservations must be paid for five days before the departure of the vessel, else reservation will be cancelled by the boat's management.

It might also be stated here that in all cases where the party travels by rail at night a special sleeping car will be had, and travel by rail on days will be in special parlor car.

Take what is known as the Niagara Belt Line about Niagara Falls, viewing the Falls from all points of interest, going down the river to Lewiston on one side and coming up the river by the shore level on the other side, passing the Whirlpool Rapids, and up by the Gorge and Rapids to the city, then retrace steps to Lewiston and board a boat for a trip across Lake Ontario to Toronto in time to take the sightseeing cars for a couple of hours around Toronto.

Take a night train for Kingston, leaving the sleeping car in time to board one of the boats of the Richlieu (Ontario Co., Friday morning, July 10, which takes on through the Thousand Islands and the Rapids, landing in Montreal the same evening, the entire day being spent boating through the beautiful Thousand Islands. The trip through the Thousand Islands is one of the most beautiful in Eastern America. Spend Saturday, July 11, in Montreal, leaving Sunday morning, July 12, at 9 o'clock, which gives daylight ride through the White Mountains and the beautiful summer re

ts of that part of New England, arriving at Portland, Maine, Sunday evening, July 12.

If it is desirable one may cut out the day in Montreal and leave Saturday morning, arriving in Portland Saturday evening.

Returning from Portland, Maine, one can come by various ways—for instance, rail to Boston;

Fall Rivers Steamship Line from Boston to New York City; boat ride up the Hudson to Albany and the train West; or going on up from Albany through Lake George and Lake Champlain via Saratoga and Ft. Ticonderoga back to Montreal and West by boat or rail; or from New York City taking the train West via Washington; or from New York City taking the Old Dominion Lines boat to Norfolk, giving you a short trip on the ocean; from Norfolk taking the train up the Potomac River to Washington, D. C. and West by rail.

Those who wish to spend the day in Detroit can leave Chicago the evening before at 11:30, arriving in Detroit in the morning, and have a day in Detroit.

It will be noticed that this schedule shows you take a train from Toronto to Kingston, boarding the boat for the trip through the Thousand Islands early in the morning. This boat leaves Toronto the evening before at 6 o'clock, and the connection from Niagara Falls to Toronto is close. We do not want to be tied down to a 6 o'clock connection and, also, the reduced fare through the Thousand Islands from Toronto to Montreal is \$8, meals and berth excluded. Taking the boat at Kingston the extra fare is \$4.50, saving of \$3.50, for the railroad fare is already included in the ticket. The berth on the sleeper would be the same price as the berth on the boat. So this saves one more time in Toronto and saves \$3.50. Please note the fact that meals and berths on all boats are extra, with the exception of the Old Dominion trip from New York City to Norfolk. On that trip the fare includes meals and berth on the boat.

The cost ticket going as described depends upon the day you return. As for illustration:

No. 1—Going via Michigan Central, Chicago to Detroit; D. & C., Detroit to Buffalo; N. Y. C., Buffalo to Niagara Falls; Gorge Route, Niagara Falls to Lewiston; Niagara Navigation Co., Lewiston to Toronto; Rail, Toronto to Kingston; R. & O., Kingston to Montreal; C. P. R. & Me. Cent., Montreal to Portland. Return all rail direct via Montreal. Thirty-day ticket, \$31.85.

No. 2—Going as per No. 1, rail or steamer, Portland to Boston, Steamer Boston to New York, New York-Chicago via New York Central to Buffalo, Michigan Central to Chicago. These tickets are also honored on Hudson River Day Line, New York to Albany. Sixty-day ticket, \$44.90.

If instead of using New York Central and Michigan Central railways, New York to Chicago, one desires to use Hudson River Day Line steamer to Albany, thence West Shore to Buffalo, and thence Wabash, Erie, Nickel Plate or Grand Trunk to Chicago, the fare will be \$43.30.

No. 3—Going as far as New York as per itinerary No. 2, returning Baltimore & Ohio, New York to Washington; Baltimore & Ohio, Washington to Chicago. Sixty-day ticket, \$44.30; if Pennsylvania lines used New York to Chicago, via Washington, \$44.90.

No. 4—Going as far as New York as per itinerary No. 2, thence Old Dominion Line New York to Norfolk, Norfolk S. B. Co. via boat to Washington, thence

Baltimore & Ohio or Pennsylvania to Chicago. Sixty-day ticket, \$47.50.

Those who cannot leave Wednesday morning on account of being pressed for time can take the Wednesday evening train and pick up the party Thursday morning at Buffalo, journeying the rest of the way with the party.

Those commissioners who take the trip as above outlined, leaving Chicago Wednesday morning, will have an abundance of time to visit while on the boats and will arrive at Portland rested and in fine fettle to take an active part in the discussions and practical work of the various sessions.

No one will want to miss a single session that it is possible for them to attend, as not a man on the program but is a recognized authority on the subject he treats, and it will be freely admitted that no other convention of any character held in this country from year to year has for the burden of its deliberations more important or far-reaching subjects than those embraced in the program of this Eighteenth Annual Convention of Association of American Dairy, Food and Drug Officials.

To be held in Portland, Maine, July 13-18, 1914.

MONDAY, JULY 13, 1914.

9 A. M.

Convention called to order by President.

Address of Welcome on Behalf of State—His Excellency, William T. Haines, Governor of Maine.

Address of Welcome in Behalf of City—Hon. Oakley C. Curtis, Mayor of Portland.

Address of Welcome in Behalf of Portland Board of Trade—Hon. Frank M. Lowe, President.

Response to Addresses of Welcome, in Behalf of National Association—Hon. S. E. Strode, Commissioner of Ohio.

2 P. M.

1—President's Annual Address, Hon. James H. Wallis, Commissioner of Idaho.

2—Annual Report of Secretary, Dr. W. M. Allen, Food and Oil Chemist of North Carolina.

3—Annual Report of Treasurer, Hon. H. F. Potter, Commissioner of Connecticut.

4—Reports of Standing Committees:

(a) Executive Committee, Dr. W. M. Allen.

(b) Committee on Co-operation, Dr. S. J. Crumbine.

(c) Committee on Bacteriological Standards, Dr. J. S. Abbott.

5—Reports of Special Committees:

(a) Joint Committee on Food Standards, Dr. C. L. Alsberg.

(b) Amendments to National Law, Hon. Geo. L. Flanders.

(c) Substandardization of Drugs and Tolerance Limits in Drug Adulterations, Dr. Charles Caspari, Jr.

(d) Memorializing Congress on Standards, Hon. Geo. L. Flanders.

(e) National Dairy Show, Dr. H. E. Barnard.

(f) Drug, Chemical and Food Exposition, Dr. R. B. Fitz-Randolph.

6—Appointment of Committees:

(a) Credentials.

(b) Auditing.

(c) Resolutions.

TUESDAY, JULY 14, 1914.

9:30 A. M.

1—General Standards, Dr. Carl L. Alsberg, Bureau of Chemistry.

Discussion—Hon. J. Q. Emery, of Wisconsin; Hon. J. D. Mickle, of Oregon.

2—Misuse and Abuse of Coined, Proprietary and Distinctive Names, Dr. Lucius P. Brown, of Tennessee.

Discussion—Dr. W. M. Allen, of North Carolina; Hon. Herman C. Lythgoe, of Massachusetts.

3—Most Efficient Methods, Including Building and Cost of Meat Inspection for Small Communities, Hon. R. M. Allen, of Kentucky.

Discussion—Hon. Maurice Groshon, of Wyoming; Dr. J. C. Mahr, of Oklahoma.

4—Regulation of Food Supplied Hotels, with Particular Reference to Sanitary Conditions Involved in Its Preparation, Dr. G. G. Frary, of South Dakota.

Discussion—Hon. C. E. Harman, of Nebraska; Hon. Herbert F. Potter, of Connecticut.

2 P. M.

(Section A: State Food and Dairy Executives.)

President, James Foust, of Pennsylvania.

Vice-President, M. E. Jaffa, of California.

Secretary, W. B. Barney, of Iowa.

Treasurer, F. A. Jackson, of Rhode Island.

Executive Committee: A. H. Jones, of Illinois; E. F. Ladd, of North Dakota; H. M. Potter, of Connecticut.

Ten minutes for each paper and fifty minutes for discussion.

Annual Address of President.

Report of Secretary.

Report of Treasurer.

1—Publication vs. Prosecutions as a Means of Abating Food Trade Evils, Hon. E. F. Ladd, of North Dakota.

Discussion.

2—Round Table: The Supreme Court Decision in the Bleached Flour Case; Its Bearings Upon the Forms of State Legislation, Hon. H. E. Barnard, of Indiana.

Discussion.

3—The Value of Specialized Counsel in Food Law Prosecutions, Hon. George L. Flanders, of New York.

Discussion.

WEDNESDAY, JULY 15, 1914.

9 A. M.

1—"Swells" and "Springers," Dr. W. D. Bigelow, Chief Chemist, National Canner's Laboratory, Washington, D. C.

(1) What constitutes a "Swell" or "Springer?"

(2) What are the conditions of the product or of the process which might be a causative agent in producing swells or springers?

(3) Where should the line be drawn as to what class of foods coming into this category might be safely and properly used as food products?

(a) Should canned fruits or vegetables belonging to the class of "swells" be permitted to be processed, or to be sold to be worked up into other products, such as the making of pie stock, or working up into butters, jams or marmalades?

(b) How may such class of fruits that have been worked up into various by-products be detected by commissioners?

(c) Does the presence of tin in excessive quantities denote that such products are made from swelled canned goods?

Discussion—Dr. M. E. Jaffa, of California; Hon. Wm. D. Saunders, of Virginia.

2—Practical Methods in the Analysis of Food Products, Dr. Herman Harms, of Utah.

Discussion—Prof. Geo. B. Taylor, of Louisiana; Dr. W. F. Hand, of Mississippi.

3—Egg Albumen in Baking Powder, Dr. E. F. Ladd of North Dakota.

Discussion—Dr. J. S. Abbott, Bureau of Chemistry; Hon. F. H. Fricke, of Missouri.

4—False Advertising, Dr. S. J. Crumbine, of Kansas.

Discussion—Hon. R. M. Allen, of Kentucky.

2 P. M.

(Section A: State Food and Dairy Executives.)

Ten minutes for each paper and fifty minutes for discussion.

1—Round Table: Inspectors or Special Agents. Their Appointment, Qualifications, Pay and Expense Allowance, Hon. J. Q. Emery, of Wisconsin.

Discussion.

2—What is Done With the Cases Declared Illegal or Not Passed? Why Should Not the Annual Reports State the Facts? Hon. James H. Wallis, of Idaho.

Discussion.

3—What Should be the Food Commissioner's Policy Relative to Passing Upon Labels and Giving Interpretations of the Law in His Correspondence? Hon. Lucius P. Brown, of Tennessee.

Discussion.

THURSDAY, JULY 16, 1914.

9:30 A. M.

1—Enforcement of Sanitary Laws and Regulations With Model Law, Dr. Oscar Dowling, of Louisiana.

Discussion—Prof. E. H. S. Bailey, of Kansas; Hon. W. B. Barney, of Iowa.

2—Uniformity of State Laws and Federal Regulation Regarding Habit-forming Drugs With Model Law, Dr. Chas. Caspari, Jr., of Maryland.

Discussion—Dr. A. E. Frantz, of Delaware; Dr. R. B. Fitz-Randolph, of New Jersey.

3—Uniformity of State Laws to Regulate the Production and Sale of Eggs With Model Law, Dr. J. S. Abbott, of Bureau of Chemistry.

Discussion—Hon. W. B. Barney, of Iowa; Dr. Sanford C. Dinsmore, of Nevada.

4—Inspection of Water Supplies, Dr. Chas. D. Howard, of New Hampshire.

Discussion—Dr. J. P. Street, Connecticut; Dr. R. E. Rose, of Florida.

2 P. M.

(Section A: State Food and Dairy Executives.)

Ten minutes for each paper and fifty minutes for discussion.

1—The Value of Specific Laws Dealing With Special Commodities, Hon. S. E. Strode, of Ohio.

Discussion.

2—Need for a National Cold Storage Act, Dr. R. B. Fitz-Randolph, of New Jersey.

Discussion.

3—Round Table: Methods of Conducting the Commissioner's Office Work, Hon. Joel G. Winkjer, of Minnesota.

Discussion.

Election of Officers.

Miscellaneous or Unfinished Business.

FRIDAY, JULY 17, 1914.

Manufacturer's Day.

(Papers are not to exceed fifteen minutes each, and duplicate copies are to be furnished the Secretary.)

9:30 A. M.

1—"What Should be the Relation Between Food Manufacturers and Food Commissioners?" Louis Runkel, American Specialty Manufacturers' Association; H. W. Hoops, National Confectioners' Association; W. M. McCormick, Chamber of Commerce of United States; Dr. T. B. Wagner, Corn Products Company.

2—"The Advisability of Labeling Canned Foods With the Date When Such Foods Were Packed," Arthur Meeker, Armour & Company.

3—"Food Sanitation from the Manufacturer's Standpoint," F. E. Barbour, Beech-Nut Packing Company; S. Fredrick Taylor, President Borden Condensed Milk Company.

2 P. M.

1—"Self-Interest a Much Greater Regulator of Foods Than Any Pure Food Law," A. P. Husband, National Millers' Federation.

2—"Effect of Pure Food Laws on High Cost of Living," Oscar McGlasson, President National Wholesale Grocers' Association.

3—"Should Food Standards Exclude or Encourage Cheap but Wholesome Substitutes?" Thos. P. Sullivan, Illinois Food Standards Commission.

4—"How Food Legislation Has Helped the Retailer," John A. Green, Secretary of National Retail Grocers' Association.

SATURDAY, JULY 18, 1914.

9:30 A. M.

1—A Food Law Weakness: "The Commissioner," Hon. J. W. Helme, of Michigan.

(a) Short Period of Their Appointment.

(b) Term Should be Permanent.

(c) Should be Removed From Politics.

(d) Should Have Knowledge of the Work.

Discussion—Hon. James Foust, of Pennsylvania; Dr. E. F. Ladd, of North Dakota.

2—Value and Methods of Conducting So-called Pure Food Shows, Hon. Joel G. Winkjer, of Minnesota.

Discussion—Dr. Oscar Dowling, of Louisiana; Dr. M. E. Jaffa, of California.

3—Sanitation of Soda Water Fountains, Dr. Chas. D. Woods, of Maine.

Discussion—Dr. R. E. Stallings, of Georgia; Dr. Robt. Wilson, Jr., of South Carolina.

4—Relation of the Food Department to the Municipal Milk Supply, Hon. John B. Newman, of Illinois.

Discussion—Dr. Mark W. Richardson, of Massachusetts.

2 P. M.

1—Editing Questions and Answers, Dr. S. J. Crumbine, of Kansas.

2—Advisability of Special Oleomargarine Legislation, Hon. James Foust, of Pennsylvania.

Discussion—Hon. George L. Flanders, of New York; Hon. Frank A. Jackson, of Rhode Island.

3—Development of Food Industries, Dr. H. E. Barnard, of Indiana.

Discussion—Dr. R. B. Fitz-Randolph, of New Jersey; Hon. W. Scott Matthews, of Illinois.

4—Ice Cream Standards, Hon. W. B. Barney, of Iowa.

(a) Necessity for Standards.

(b) What is a Reasonable Standard?

(c) Feasibility of Milk Fat Standard.

(d) Should "fillers" be permitted?

(e) What "filler" is least objectionable and in what quantity?

Discussion—Hon. Joel G. Winkjer, of Minnesota; Dr. F. W. Cogswell, of Montana.

5—Report of Resolutions Committee.

6—Election and Installation of Officers.

SECTION B.

ASSOCIATION OF AMERICAN DAIRY, FOOD AND DRUG OFFICIALS.

President, J. R. Chittick, Iowa.

Vice-President, B. B. Ross, Alabama.

Secretary, F. L. Shannon, Michigan.

PROGRAM.

TUESDAY, JULY 14, 1914, 2 P. M.

1. Address of President.

2. Egg Albumen in Baking Powder, H. L. Jackson, Boise, Idaho.

3. Heavy Metals in Baking Powder. Roe E. Remington, Agricultural College, North Dakota.

Part One—Arsenic.

Part Two—Tin.

4. The Influence of the Commercial Chemist in the Control of Commodities. A. C. H. Morey, Chicago, Ill.

5. The Examination of Essential Oils. E. M. Chase, Washington, D. C.

6. Chemical Control of Paint, Linseed Oil and Turpentine. W. B. Frisbie, Des Moines, Iowa.

7. Analysis of Commercial Asafœtida. Adolph Zieffle, Agricultural College, North Dakota.

WEDNESDAY, JULY 15, 1914, 2 P. M.

8. A Study of Variations in Weights and Measures in Connection with the Net Weight Amendment to the Food and Drugs Act. L. M. Tolman and W. E. Hillier, Bureau of Chemistry.

9. The Sweating of Oranges. E. M. Chase, Washington, D. C.

10. The Detection of the Coating and Polishing of Rice. J. E. Mastin, Agricultural College, Mississippi.

11. Clean Milk and Its Production. C. P. Moat, Burlington, Vt.

12. Food Products from Soy Beans. H. M. Loomis, Washington, D. C.

13. Fertilizer Control Work. R. E. Stallings, Atlanta, Ga.

14. The Preparation of Food and Drug Exhibits for Educational Purposes. F. L. Shannon, Lansing, Mich.

THURSDAY, JULY 16, 1914, 2 P. M.

15. Wrapping of Bread, Its Chemical Composition, Bacterial Content and Flora of the Loaf. H. E. Barnard, Indianapolis, Ind.

16. State Drug Inspection. A. R. Todd, Lansing, Mich.

17. The Detection of Adulterants in Cocoa Butter with Special Reference to the Quantitative Determination of Cocoanut Oil. H. S. Bailey, Bureau of Chemistry.

18. When Is An Orange Mature and Wholesome? R. E. Rose, Tallahassee, Fla.

19. The Bacteriological Examination of Foods. C. E. Gabel, Chicago.

20. Round Table—General Discussion.

Election of Officers.

Miscellaneous or Unfinished Business.

Notes on Food, Drug and Sanitary Inspection

By GEORGE B. TAYLOR, B. S.
STATE ANALYST OF LOUISIANA

GROCERIES AND MEAT MARKETS.

WHILE groceries and meat markets are quite distinct from each other, yet in general, similar conditions may exist; and in a great many instances both are in conjunction. Hence the following score card:

LOUISIANA STATE BOARD OF HEALTH.

INSPECTION OF GROCERIES AND MEAT MARKETS

Name of Owner.....Date.....
City or TownParish.....
Grocery.....Meat and Fish Market.....
.....Floor (239b, 258, 272a).....
.....
.....
Walls and Ceilings (239b, 258).....
.....
.....
Shelves and Counters (268d).....
.....
.....
Back RoomsToilets.....
.....
.....
.....Style A. B. C. D. Light and
Ventilation.....Screens (118—168, 272b)
.....
.....Flies
Refrigerator (272d)
.....
Meat (247, 265, 272g).....
.....
Meat Block (272h).....Sausage
Machine.....Meat Scraps (272c)
.....
.....
.....Garbage (258).....
.....Protection of
Goods (259b)
.....
Proprietors and Clerks (272f, 587).....
.....
.....General Arrangement
and Condition of Goods.....
.....
Samples
Seizures
Remarks—(Use Back of Card)

GRADE—EXCELLENT GOOD FAIR POOR BAD

Notice Given.....

Inspector.

It necessarily follows that sanitary conditions require a clean floor, and clean walls and ceilings. Dust and dirt are insanitary. Cobwebs may not in themselves be insanitary; but their presence indicates carelessness in the upkeep and neatness of a place. The walls and ceilings should be smooth and painted. The floors of meat markets should never be of wood. Flagging or cement pavement sloping to a drain should be required. The use of sawdust or other absorbent material should be prohibited. The sanitary surroundings of a meat market should be wholesome.

The shelves and counters should be clean and free from dust. Neatness and order in the arrangement of goods may of themselves show regard of sanitary requirements. Back rooms should be taken into consideration as too often decomposed organic matter and insanitation may be the cause of the presence of flies in the main part of the building.

Unless the goods are amply protected, all stores of this kind should be screened. In meat markets this is more important as the waste is almost entirely of a decomposable nature. Meat markets therefore should be required to be completely screened. The inspector should consider that the presence of screens should indicate the absence of flies. Some owners of food supply places regard the putting up of screens as the final mark of sanitation, and may not take the trouble to see that they are effective. It is no uncommon thing to see screen doors wide open with no thought of the effect. Under these conditions no credit should be given for screens. The inspector should in all cases note the presence or absence of flies as this is the primary point in modern sanitation.

The refrigerator should first show its ability to keep the minimum temperature conditions. It should be sweet smelling, perfectly clean and dry. Modern direct air refrigeration should be used whenever possible. The old insanitary ice box should be relegated to the rear. This is the oblong box in the form of a chest which contains ice in the bottom and as a rule meat of all kinds piled promiscuously on top. The inspector will never find this box clean, sweet smelling or conducive to a good grade of sanitation.

All stores and markets should have proper ventilation and sufficient light equally distributed. Lavator

and other toilet facilities of sanitary construction should be installed. Garbage should be carefully collected and kept in covered metallic containers. Garbage should be carted off once a day. No scraps of meat, offal, bones and other organic matter should be left exposed to the atmosphere of the room.

The custom of buying and selling retail articles in the original containers of different amounts to suit all

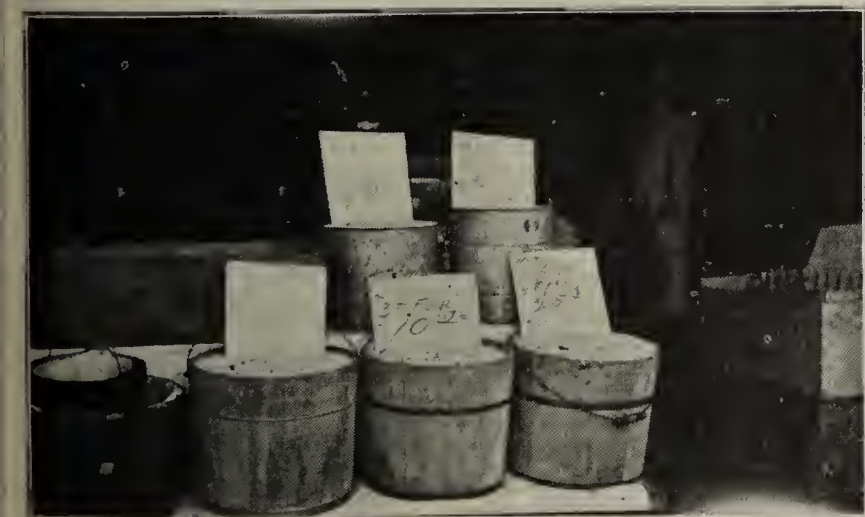


NO PROTECTION OF GOODS.

customers has become universal. This in itself has greatly increased sanitary conditions and is the ideal method of distribution especially when the manufacture of the goods is conducted in a cleanly manner. Nevertheless at all groceries there will be a certain amount of bulk goods which although kept in the original containers are doled out in small quantities. These goods should be carefully protected to keep out dirt, insects and other foreign material. In meat markets the meat for sale should not be kept exposed to the air except in such quantities as are needed for immediate use. In the modern sanitary market there is a minimum exposure of meat.

An index of the condition of a place may be noted by the appearance of the persons handling and selling the goods. Cleanliness and neatness of person are prime requisites. No person suffering from a contagious or infectious disease should be employed in a grocery or meat market.

Goods should be arranged orderly and neatly. As said before bulk goods should be protected. Canned



GOODS NOT PROTECTED.

goods should look fresh and new. Rust on cans is indicative of age, bad handling or lack of care. The inspector should look for bulging of the cans at the ends. These are called "swells" or "puffed cans," the

bulging out of which is due to the formation of gas in the interior. All puffed cans should be seized at once as this is the best sign of the deterioration of the goods. When over twenty-five per cent of a lot of canned goods are puffed, the inspector is justified in seizing the whole lot for further examination. Canned goods, especially meats, suspected of being old should be sampled by the inspector. Some of these may be opened. In opening, a can should be cut around the edge so that the entire contents can come out and remain in the shape they were in the can. The interior of the can should be examined for corrosion and for blackening, the latter due in most cases to the presence of hydrogen sulphide gas found in decomposing meats. The contents may be noted for odor, for firmness, and for flakes of tin on the outside. If the outside of the material is inclined to be jelly like, decomposition is taking place.

The ends of the cans should also be noted for puncturing. This is indicated by the pushed in appearance and ragged edges on the interior of the hole. Some dealers have punctured puffed cans, let out the gas, resoldered, and reheated in order to stop spoilage and make the material look fresh. Reprocessing will lessen the weight of the goods from one to two ounces. This should be noted especially when the net weight is given on the can. Corrosion of the inside of the can



GOODS NOT PROTECTED.

indicates tin or salts of tin in the contents. Samples should then be taken for chemical analysis. The United States Department of Agriculture in Food Inspection Decision Number 126, allows no more than 300 milligrams of tin, or an equivalent amount of the salts of tin, per kilogram in canned goods. Professor E. H. S. Bailey, Chemist for the State Board of Health of Kansas states regarding "Salts of Tin in the Fruit":

" * * * The contents of the tin has been determined in a large number of cases in the flesh of the fruit itself. The public would naturally expect some tin in the liquid surrounding the fruit, but it should be generally understood that tin is in the flesh of the fruit also. The amount of tin in the fruit itself often runs very high, in not a few cases being two, three or four times the maximum amount allowed by the United States Government. The tendency is for the tin to be much greater in amount in the case of swelled and spoiled fruit * * * . The amount of tin can be roughly judged by the appearance of the interior of the can after opening it. If the surface is much etched, so that it looks like a heavily frosted window

pane, and is not smooth and glossy, then the fruit will certainly contain much tin."

In groceries other meats, such as bacon, ham and dried fish should be examined. This may be done by means of a clean steel skewer thrust into the meat, any trace of taint present being recognized by the sense of smell. For the inspection of fresh meats in groceries or markets the veterinarian with special training is required. The general inspector may, however, by following certain well established rules, be able to do a certain amount of meat inspection when a well-trained veterinarian is not to be had. Following are summaries of rules for meat inspection given by various authorities on meat:

THE MEAT INDUSTRY AND MEAT INSPECTION, Volume III., Leighton and Douglas:

"In all cases the carcass should be that of a well

In all cases when sufficient time has elapsed for the carcass to cool and set, the fat should be firm and the suet hard, containing no watery jelly or juice, free from blood stains, and creamy white to yellowish in colour * * *." "The odour should be sweet and agreeable; a skewer thrust deeply into the flesh should have no unpleasant odour when withdrawn. Bull beef, it must be remembered, is usually dark, but in other cases abnormal darkness of the flesh is to be regarded as suspicious of imperfect bleeding. -

FLESH FOODS—C. Ainsworth Mitchell, General Characteristics of Sound Flesh:

1. The color is neither very pale or dark purple.
2. It has a marbled appearance, due to the presence of small veins of fat distributed throughout the muscle.
3. It is firm and elastic to the touch, and not sodden or flabby, and scarcely moistens the finger.



MODEL GROCERY.

nourished animal, without signs of attenuation or wasting: * * *." "Good meat is firm and elastic to the touch, * * *, not pitting or cracking on pressure; it should be juicy, but not wet or flabby; the colour should be uniform, without brown or discolored patches. Good beef is of a bright red colour, marbled with fat; veal is always firmer and less firm to the touch; mutton is dullish red, firm, the fat hard and usually white; in both beef and mutton a uniform yellowness of the carcass, almost a saffron tint, may be associated with healthy conditions. The carcass of the pig should be plump; the flesh is naturally pale and the fat somewhat soft; the skin should not set in folds or wrinkles, and should be without stains or blotches; bruises and scratches are not uncommon.

4. It is free from objectionable odor.
5. It does not become wet on standing for a day or two, but on the contrary, gets drier.
6. It does not lose more than 70 to 74 per cent in weight when dried at 100° C., whereas bad meat often loses more than 80 per cent.
7. It does not shrink much in cooking.

THE MEAT INDUSTRY AND MEAT INSPECTION. Volume I, Leighton and Douglas:

Fish Freshness. With regard to the freshness, fish should be firm to the touch. The duration of the stiffness of recently caught fish depends upon the weather, and passes off in from six to twelve hours; the eyes and skin should be bright and glistening; the gills

bright red, unless dulled by ice; no trace of offensive smell.

MEAT HYGIENE—Edeleman. FISH.

For distinguishing fresh fish from stale and decomposed fish, the following fixed points are of service:

to see that no coloring matter or dye is used in the water in which sausages or other meat food products are cooked. The momentary dipping of sausage in casings in solutions of permitted colors is allowed, provided the color does not penetrate the casings."

Condition.	Scales.	Eyes.	Gills.	Body in general and meat.	Specific gravity.
Fresh.	Glittering, free of slime, firmly adherent.	Standing out.	Gills, lids and mouth closed.	Solid; placing the fish horizontally on the hand, it does not bend. Meat firm, elastic, tight on bones.	Sink in water.
Not fresh; stale for some time.	More or less easily removable, slightly slimy or smeary.	Red bordered, sunken; cornea cloudy.	Lids open or can be easily opened; gills pale yellow, dirty, or grayish red, covered with the same kind of fluid, odor disagreeable.	Body bends easily, especially at the tail end; occasionally bloating of the abdomen, which may be bluish discolored. Finger impressions are easily made, and remain; meat is soft, and can be easily removed from the bone.	Swim on the water.
Putrefied.	Very loose, covered with a smeary, slime-like mass of disagreeable odor.	Breaking down; are frequently removed.	Very off-colored; extremely offensive odor.	Withered, flabby, soft, pale, bloated. The meat is sloppy.	Swim on the water.

When a fish is heated, it has a red ring around the ball of the eye and the flesh is soft and mushy, the gills being brown.

When a fish drowns, it has a heavy white scum over the eyes, the gills become black, and the flesh is bloated.

When a fish becomes rotten from being kept too long, it has a heavy coat of yellow slime over the body and the eyes are sunken.

When shrimp become rotten, they are red, the heads fall off, and the odor is bad.

Whenever the inspector finds meat tainted or in a decomposing condition, or when he finds abnormalities due to disease, he is justified in seizing the meat, removing it from the premises, and destroying it at once. It may be saturated with such agent as will prevent its being sold for food.

Chopping blocks and counters where meat is handled should be thoroughly scraped daily and washed with hot water and a cleansing powder. All instruments used in cutting should be cleaned and scalded every day. Hooks where meat is hung should be kept clean.

The inspector should note especially the cleanliness of the sausage machine, the goods used to make sausage, and the probable use of preservatives. Whenever a butcher uses old scraps of meat and waste to make sausage, he is almost compelled to use a forbidden preservative to keep it and make it look fresh. He may also use cereals and a dye in the interior of the meat.

Order 150, Bureau of Animal Industry, Regulation 22, Section 2, Paragraph 1, says: "There may be added to meat or meat food products common salt, sugar, wood smoke, vinegar, pure spices and salt-petre * * *."

Instructions to inspectors (File No. 75) in part: "Inspectors in charge of meat inspection are required

Order 150, B. A. I. Regulation 18, Section 16, Paragraph 1, says: "Sausage shall not contain cereal in excess of two per cent. When cereal is added its presence shall be stated on the label or on the product."

Where filthy and dangerous conditions of meat handling or meat manufacture prevail, the inspector should take legal steps to seize all food material and close the place as a menace to health.

The inspector may be able to find some adulteration without the aid of the analytical department. There are a few simple tests which he may use to detect adulteration of some articles. These tests should be used only to obtain preliminary information. When adulteration and other legal violations are suspected, a sample should be taken for chemical or bacterial examination. A sample should be fair—that is it should represent the whole lot of goods. It would be as unfair for the inspector to pick out the worst goods of a lot as to take out only the best appearing. The United States Government and most of the states require a sample to be divided into three parts—one for analysis, one for holding, and one for the responsible person in charge of the goods. Sometimes, especially in state work, it is not practicable to divide the sample.

"A sample should be collected, if possible, whenever an interstate consignment is reported, at the point from which it is shipped, especially if the nature of violation is adulteration or some form of suspected misbranding, which must be determined by an analysis. This course is not necessary where the misbranding is self-evident or the inspector is in possession of sufficient facts to support the charge. After collecting the sample it should be forwarded to the most convenient laboratory. This will enable an examination to be made and enable the bureau to refer the matter for seizure while shipment is in transit or shortly after its delivery * * *. Upon the indorsement of a recommendation for seizure, a request is made of the district attorney having jurisdiction to prepare a libel * * *. After libel is prepared and monition

is issued it is the duty of the inspector to accompany the marshal for the purpose of identifying the goods." (Manual of Instructions.)

A simple procedure made legal in some states is for the inspector to tag the goods as seized and serve notice upon the owner to the effect that the goods have been seized and order him not to dispose of them unless notified by the department.

Condemnation by the United States Food Inspection Service are made after trial by the courts, the order of court being required. Its orders are carried out by the United States marshals.

In some states a hearing is given. The owner is appraised of the finding and notified that the goods are condemned. If he agrees to the findings the goods may be destroyed without going to the courts.

Decision 151, which revoked Regulation 39. This regulation stated that the Food and Drug Regulations did not apply to domestic meat or food products which were under the meat inspection law. The United States Food and Drug inspection service is now co-operating with the inspection service of the United States Bureau of Animal Industry, and as stated in instructions to food and drug inspectors, "The principal, if not the exclusive charge for prosecutions against the sale and shipment of meat, will be under Paragraph 6 of Section 7 of the Act * * * ." The application of this law to meat and meat food products will be effected by co-operation between the Bureau of Animal Industry and the Bureau of Chemistry.



REAR PREMISES OF INSANITARY MARKET.

In giving the above on meats and perishable goods, there has been specially in mind the following portion of the Food and Drugs Act of June 30, 1906:

"Section 7—That for the purposes of this Act an article shall be deemed to be adulterated. In case of food:

Sixth. If it consists in whole or in part of a filthy, decomposed, or putrid animal or vegetable substance, or any portion of an animal unfit for food, whether manufactured or not, or if it is the product of a diseased animal, or one that has died otherwise than by slaughter.

This is regarded as the most important clause of the Food and Drugs Act, and is copied by every state which has enacted a food law. The importance of this has been immeasurably increased by Food Inspection

LOUISIANA STATE BOARD OF HEALTH. INSPECTION OF SLAUGHTER HOUSES.

Name of Owner.....	Parish.....
Location.....	Registration Number (237, 261).....
Date.....	Construction of Building (238).....
Floors (239a, 258, 272e).....	Walls (239b, 258).....
Ceilings.....	Screens (239b).....
Water Supply (239b, 252).....	Drainage (239a, 252, 260).....

Premises (238, 245, 258, 260).....
.....
Cooling Room or Refrigerator.....
.....
Utensils (239b, 258, 272d, h).....
.....
.....Rendering (257, 266).....
.....
Hides (238).....
Offal (239a, 249, 254, 256, 264).....
.....
Inspection (240, 241, 251).....
.....
Employees (272f, 587).....
.....
Protection of Meats from Dust, Flies, Etc. (259b).....
.....
Animals Killed—per Week.....per Day.....
Remarks—(Use Back of Card)

GRADE—EXCELLENT GOOD FAIR POOR BAD
Notice Given.....
.....Inspector.

to the fitness of the animal for slaughter, recognizes abnormalities due to disease or bad handling of the carcass, and includes fitness to judge as to the proper facilities and equipment for slaughtering, handling and keeping properly the meat food products. A general inspector is not in position therefore to make ante and post mortem inspection of cattle. He may, however, by familiarizing himself with the necessary plans, equipment, and sanitary methods be in position to judge generally of the condition of a place of this kind from a sanitary standpoint.

Cleanliness is the keyword to all inspections of this kind. This means cleanliness of building and surroundings, utensils and workers, lack of disagreeable odors, and a pure abundant and convenient water supply.

Wherever possible there should be one and only one slaughter house in each community. This should be publicly owned and be under the sanitary supervision of the department of health. There should not be allowed to be sold in a community fresh meat products which have not passed through the municipal abattoir or a slaughter house under the government supervision and which do not bear the stamp of competent inspection service. The municipal abattoir is being generally advocated, and seems to have proven successful wherever it has been established. Its advantages are



AN AVERAGE TYPE OF SMALL-TOWN PRIVATE SLAUGHTER HOUSE.

SLAUGHTER HOUSES.

Slaughter houses are erected for the conversion of live animals into meat food products and for the handling of the by-products of slaughtering. Slaughter houses must be built and equipped for the economical, rapid, and cleanly handling of meat products.

Taking into consideration that the inspection of slaughter houses means also that the animals which enter and the food products of these animals must be included in this inspection, it must of necessity be seen that special fitness is required. The inspection of animals both before and after killing belongs not only to the veterinarian but to one who has specialized in the work. This knowledge indicates ability to judge as

concentration of work, meaning better facilities and equipment; economical handling of the products, since a great deal of work may be done by fewer persons; the working up of the by-products, as in a central abattoir enough material of this kind may be on hand to make its working up profitable; and a more thorough and efficient inspection service.

In general the slaughter house should be away from other buildings, so situated that the maximum of fresh air and sunlight may be obtained. Its situation should be such that the yard can be thoroughly drained. There should be an abundant and convenient supply of pure water and a good sewerage system. The building should be well constructed and conveniently arranged. The hide room and the by-product room should be away

from the slaughter and cooling rooms. Everything should be arranged for the rapid and systematic handling of the materials. The cooling rooms must be so arranged that nothing but meat or meat food products may enter. Inedible offal should never be trucked through these rooms. The floors of all slaughter houses should be sound, smooth, and water tight, well drained and wherever possible connected with a sewer, properly trapped. Whenever there is no proper sewerage system, the waste materials, blood, offal, etc., should be collected in water tight covered containers. In this instance unless the slaughter house has facilities to work up this material, it should be hauled entirely away—so far that there can be no contamination of the slaughter house. The walls of slaughter houses should be smooth and waincoted with impervious material. The ceiling should be smooth. Walls, posts, partitions,



PRIMITIVE CONDITIONS.

pillars, doors, etc., should be kept clean by scraping, washing or painting. All knives, hooks, and receptacles should be kept clean. There should be on hand the proper solutions for washing and disinfecting the knives and hands of persons handling diseased meat. Soap and towels are necessary in keeping the hands clean. Special provisions should be made for light and ventilation. In all except the cooling rooms direct sun light should be admitted as much as possible. In fact all of the work of the slaughter house required good well distributed light. Ventilation should be such that there will be no disagreeable odors. Exhaust fans

should be installed to assist natural means of ventilation.

Toilet and washing facilities should be provided. To this should be added well kept dressing rooms. Special note should be taken of these arrangements. They should not only be cleanly, but should be so arranged as to make cleaning easy. Shower baths are an extra sanitary measure.

Employees should be healthy, neat, and cleanly about their persons. While on duty clothing of washable material only should be worn. Special attention should be given to keeping hands and knives clean. To assist in this hot and cold water, soap, disinfectants, and washing facilities should be convenient.

All utensils, knives, hooks, trays, trucks, should be kept thoroughly clean.

All exposed surfaces should be painted with material which will make them impervious.

Special care should be taken in keeping vermin from the slaughter house. This is especially important in rooms where the finished product is kept.

Offal should not be allowed to be fed to hogs; and this practice around the slaughter house should be severely condemned, unless the material is especially prepared for feeding.

The presence of large numbers of flies indicate insanitary conditions. Screens should be used wherever



PRIMITIVE CONDITIONS.

possible; and the presence of fly traps and fans properly placed will assist in keeping down this pest.

The following summary from Circular 173, Bureau of Animal Industry, is added:

"All buildings that are to be used for the purpose of slaughtering animals for the preparation of meat or meat food products should meet the following requirements:

"1. A location on a site that is dry and with an aspect which gives an abundance of sunlight.

"2. An abundant supply of pure water, by means of which perfect cleanliness of all parts of the building can be secured, and proper means for the removal of waste water.

"3. A system of immediate and perfect sewage removal which renders it impossible that the air or water should be contaminated.

"4. A system of ventilation which carries off all impurities from the air of the rooms and supplies clean, pure air as required.

"5. A condition of building construction which admits of perfect cleanliness of the ceilings, columns, walls, and floors.

"6. Proper equipment."

General Federation of Women's Clubs Endorse Necessity of Uniformity in Food Legislation

AT the welfth biennial meeting of the General Federation of Women's Clubs, held in Chicago, June 9-19, the subjects of Home Economics and Public Health were given a prominent place on the program. Addresses were given by some of the best authorities of the country on these important topics, pure food, sanitation, food laws, etc., being favorite themes.

Among the addresses given we are publishing that of L. M. Tolman, chief of the Central Food and Drug Inspection District, who as Dr. Carl L. Alsberg's representative spoke on "The Need of Uniformity in Food Legislation." Mr. Tolman explained the unsatisfactory results when working under a condition of lack of uniformity of the requirements of city, state and national laws, and how, because of this lack, the desired ends are defeated. He asked for co-operation of the women of the Federation in demanding a uniformity of legislation, and expressed his belief that with such co-operation the desired results could be more speedily obtained.

That the delegates were impressed with Mr. Tolman's remarks was plainly evident and at the conference of the Committee on Legislation later on, a spirited discussion was held, and it was decided that the several state federations should confine their activities to local and state laws, and refrain from recommending any state legislation which was not in thorough harmony with the Federal law.

Mr. W. Scott Matthews, Food Commissioner of Illinois, was another speaker whose remarks before the Federation we are publishing. Mr. Matthews spoke especially on the subject of Food Sanitation and impressed upon his hearers the necessity of educating the general public to the urgent need for more sanitary handling of foods and food products, both in process of manufacture and in methods of distribution to the ultimate consumer.

"Clean Food," which was the title of an address by Dr. H. E. Barnard, Dairy and Food Commissioner of Indiana, afforded further opportunity to drive home the importance of right sanitary conditions in food handling. This address also is being published in this issue of the American Food Journal.

Many prominent people were in attendance upon the conference and among those who took part in the discussions following the addresses were: Prof. Isabel Bevier, University of Illinois; Prof. Abby L. Marlatt, University of Wisconsin; Dr. Charles F. Langworthy, Washington, D. C.; Prof. Marion Talbot, University of Chicago; Dr. Herbert D. Pease, Lederic Laboratory, New York; Dr. John Long, Chicago; Mr. Harry Snyder, Minneapolis, Minn.; Dr. Amy Daniels, University of Missouri.

Address of L. M. Tolman, Chief of Central Inspection District.

Dr. Alsberg had intended to be here today to address you on this subject, and it was only at the last moment that the pressure of other business prevented his coming and I am very sorry that he can not be here to discuss this particular subject in which he is so deeply interested.

Since taking up the work of the Chief of the Bureau of Chemistry, a very large part of his energy has been directed along the line of bringing about co-operation and co-ordination in the enforcement of food and drug laws

throughout the country and he very much desires to have me tell you what he is trying to do along this line. Last fall, Dr. Alsberg suggested to the Secretary of Agriculture that a general conference be called for the purpose of bringing about a better feeling of co-operation and to bring about a uniformity of action among the officials having to do with the enforcement of the various food and drug laws of this country. A large number of people came to this conference and it was a success, and I think it will have a very material effect upon the bringing about of this desirable condition of co-operation and uniformity. As a direct result of this conference, Dr. Alsberg established an office of co-operation in the Bureau of Chemistry. This office of co-operation was established solely for the purpose of bringing about this co-operation and co-ordination of the work of the various forces that work along these lines, and to take charge of this office, Dr. Alsberg looked over the various men in this country who have been identified with this work and finally decided that there was one man particularly qualified to take up the work and he persuaded Mr. Abbott, the Dairy and Food Commissioner of Texas, to come to Washington and begin the organization of this work, and this has been done. While the work is only in an organization stage, I think we can safely say that it will be a great influence for a better condition in this particular line of work.

Co-operation and uniformity has been the watchword of the department since Dr. Alsberg became the chief of the bureau, and he desires to have the co-operation and to co-operate with the Federation of Women's Clubs.

The need of uniform food legislation is best illustrated, in my opinion, by showing some of the effects of non-uniform laws and legislation. There are two standpoints from which we may look at this question; one from the standpoint of economics—the effect of non-uniform laws upon the cost of distribution, manufacture and the cost of the product to the consumer, and this is not a small matter. The manufacturer must of necessity prepare a certain article under three or four different labels, keep them separate, distribute them separately. The effect on the cost of the goods, on the cost of distribution and on the cost to the consumer are considerable.

As the general topic for discussion this afternoon is the question of sanitation. I shall limit my brief remarks to a number of illustrations of the evil effects of non-uniform legislation upon the distribution of unsound and unwholesome food products. Take, for instance: There is a large city in the United States which has a strong sanitary law, a rigid enforcement of it, especially as it applies to the sale of milk supplied by dairies to this city, these dairies must be sanitary and the animals furnishing the milk must be free from disease, and the milk must be shipped in a sanitary and satisfactory manner. As a result of this, this particular city has a very satisfactory milk supply. There are, however, many dairies in the vicinity that are not permitted to ship milk into that city; and what does become of their milk? Around this city there are a number of smaller towns which have a large foreign population of poor people, where there is no strong enforcement of sanitary or health regulations. Therefore, this becomes the market for the milk from the unsanitary dairies. This is undoubtedly the worst effect of uneven legislation. It simply brings about a change in the course of distribution, separating the good into certain channels of trade and concentrating the bad into other channels of trade; and as a result certain people have a worse supply of food than they would if there was no regulation whatever; and this must ever be so. It is simply a question of cause and effect upon the distribution of food products.

Another illustration of the evil effects of uneven legislation: Take the meat inspection, as it is carried on in the United States with a strong national law and with weak or no state or city laws. The national meat inspection requires rigid and sanitary conditions in the factory producing the meat, requires that the animals shall be carefully inspected before and after slaughter, and that the meat must be handled in a clean and sanitary manner. Practically few of the states or cities have such sanitary requirements or such rigid inspection; and as a result, here again we have the separation of

the good and the concentration of the bad, and as the meat passed under federal inspection is primarily for interstate commerce, the effect of these uneven laws is to make the meat, produced in uninspected establishments within the state, of a much lower and much more unsatisfactory quality than the meat which is prepared to be shipped out of the state. It cannot fail to have this effect, for the man who has an animal which he knows will not pass the inspection at the federal inspected establishment, sells it to the uninspected establishment, and as the uninspected establishment is without sanitary requirements as regards cleanliness for handling of the meat, this cannot fail to lower and injuriously effect the quality of the meat sold within the state by the state manufacturers.

It is perfectly evident that there will not be a uniform supply of clean, sound, wholesome meat for sale in the city and in the state and in the nation until there is a uniform law or until this meat is prepared under the same uniform regulations in the state and in the city and as is required for the meat to be shipped in interstate commerce. It is impossible to expect that this unequal legislation will not bring about this effect. It is bound to bring it about and the only way that it can be cured is by having a uniform, rigid, and similar enforcement of the law throughout the country.

These few illustrations, I think, show without further argument the necessity for uniformity and the evil effect of lack of uniformity and the only way that this condition, which now exists, can be overcome is by having all of the people, all of the clubs that are interested in this question of public health and sanitation get together and use their influence to bring about a better condition.

I believe that there is no question but that the women of this country are more interested in the question of sanitation and wholesome food than the men. Naturally, they should be for their interest, and their work, are much closer to this question of food supply and if the women of this country make up their minds that they will have a sanitary production of milk, uniform legislation regarding the inspection of meat and uniform laws regarding the distribution of food products, they will have it because there is no force that can prevent them from accomplishing this result. Certain influences may delay, but there is in my judgment nothing that can stop such an influence, and we certainly hope that we will have co-operation and the assistance of the Federation of Women's Clubs and the women of this country in bringing about this most necessary condition of uniformity in the enforcement of food laws and in the uniformity of the laws themselves.

Address of W. Scott Matthews, Illinois State Food Commissioner.

In the few minutes which I have to address you I can only outline some of the ways in which the Woman's Clubs can co-operate with the Food Commissioner in bettering their food supplies.

The most important problem which confronts us today is the one of dirty foodstuffs manufactured and handled under unsanitary conditions.

Wholesale campaigns of education must be conducted before many of our food products will be handled in such a manner as to insure their freedom from disease-carrying bacteria. The problem of a clean milk supply remains unsolved in many towns, and this in spite of the fact that impure milk causes the death annually of thousands and thousands of infants that can use no other food.

One of the most humane acts which any club could perform would be to see that a proper milk ordinance is passed and enforced in each town. Where for any reason it is impossible to pass such an ordinance, housewives should be taught not only the dangers of impure milk but how to kill all disease germs by pasteurization.

The housewife should be instructed as to the proper methods of handling milk in the home and its use as a food.

The poor and uninformed mothers should be shown how to properly store and modify baby's milk and thereby obtain sufficient food for their normal development.

Woman's clubs through their home economic and civic departments should see that active anti-fly campaigns are conducted during the early fly-breeding season, and that health officers do not tolerate fly-breeding nuisances.

I believe that flies adulterate more food than all other agencies combined and for this reason I cannot too strongly urge the thorough awakening of the public to this danger.

In teaching the schoolchild, the motion picture of the fly

and its habits makes a strong appeal and leaves a lasting impression.

Clean streets and alleys as well as intelligent handling of manure and garbage are a necessity in controlling the fly.

The woman's clubs as representatives of the great body of purchasing housewives have under their control the principal weapon with which to fight impure foods. If women would refuse to patronize the adulterator and careless merchant he would soon cease to exist, for the reason that no store can be maintained without customers.

A committee of the Home Economic Department could be appointed to circulate literature and other information of value to the housewife and dealer. Many valuable bulletins published by the State and Federal departments remain uncirculated because of the fact that the names and addresses of the persons needing them cannot be secured. Then, too, a bulletin handed to a dealer by a member of such a committee would be read whereas one received, together with a lot of advertising matter, through the mail may be overlooked.

As Food Commissioner of this State I have had the co-operation of the Illinois Woman's Clubs in these campaigns and the results which we have obtained have been most gratifying.

It is unnecessary for me to go into detail and show not only what *can* be done but what *has* been and is *being* done, to elevate the standards for foodstuffs by your honorable body. The past you are all acquainted with; the future is safe in your hands.

In conclusion I wish to say that one of the most important duties which the Household Science departments of the Woman's Clubs can perform is to educate the general public to the fact that foods manufactured and handled under unsanitary conditions are deadly.

Address of Dr. H. E. Barnard, Indiana Food and Drug Commissioner on Clean Food.

Clean milk, clean meat, clean bread, clean water—these are the vital problems in food law enforcement. It is good to know that our food supply is free from the adulterations that cost us so much and benefited us so little but a few years ago, and that food fraud is no longer an issue except as it is necessary and always will be necessary to control crooked dealers by police methods. Food manufacturers and distributors are as strongly opposed to adulterated food as consumers and officials. Let us consider the battle for pure food won and press on to as splendid a victory in a far more important and vital cause.

Many foods chemically pure and deviating not a whit from established standards are sanitariously unfit to eat. Many bakeries producing every day thousands of loaves of the finest bread are still content to distribute those loaves unwrapped and under conditions which every thoughtful consumer recognizes as unsanitary. Downtown workers take their noonday lunch in restaurants lined with plate glass mirrors and never know that the refrigerators are lined with corroded zinc or that the dishes are washed under conditions so unsanitary as to make the average housewife chill with horror.

What matters it to the baby if its milk contains 3.25% butter fat if it is produced under even average dairy conditions?

Food control work has undergone a metamorphosis in the last two or three years and the problem of the chemist has become the duty of the housewife. It is impossible to put enough Federal, State or municipal food inspectors into the field to insure clean food for our people unless they have the constant, active support of the women of the country. It is as impractical for a centralized food control to inspect the hundreds of thousands of dairies from which come our milk, butter and cheese as it is for the Government to regulate the sanitation of your kitchens. All the work of successful health officers and the hundreds and thousands of model dairies has accomplished almost nothing in comparison with the task set for the sanitarian who is trying to find a pure milk supply for a large city instead of for a few families. For every model dairy there are a dozen that have almost no redeeming feature; either in equipment, management or character of output; for every story of tested herds, cement stables and sanitary milk houses there might be written a hundred of diseased cows, dilapidated barns, impure water, inefficient equipment and careless and ignorant methods.

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Covered Hams and Bacon Not "In Package Form" Under the Federal Net Weight Law

THE United States Department of Agriculture has ruled that hams and bacon, covered with the materials usually employed to retard shrinkage and to prevent spoilage and contamination are not "in package form" within the meaning of the net weight amendment to the Food and Drugs Act, and consequently such coverings need not be marked with the weight of the meat.

This was precisely the contention of the Chicago packers, who were represented by Geo. P. McCabe, formerly solicitor of the United States Department of Agriculture, and at present engaged in the practice of law in Chicago.

The decision which was reached after careful deliberation and investigation is in the form of a communication to Mr. McCabe signed by Dr. Alsberg, but it is known that the conclusions were approved by Solicitor Caffey, by the Bureau of Animal Industry and by the committee representing the three secretaries.

The decision is as follows:

Geo. P. McCabe, Esq., 610 Harris Trust Bldg., Chicago, Ill.

Sir: Receipt is acknowledged of your letter of May 15, 1914. You refer to your brief, previously filed with the department, in which you urged that hams and bacon covered with paper, gelatin, or cloth, as a protection against contamination and to prevent shrinkage, are not in "package form" within the meaning of the Act of March 3, 1913 (37 Stat. 732), known as the Net Weight Amendment to the Food and Drugs Act. You ask whether, upon the facts as stated in the brief, such coverings of hams and sides of bacon are required, under the amendment and the regulations made pursuant thereto by the Three Secretaries, published in Food Inspection Decision No. 154, to be marked with the weight of the meat.

In your brief you say

There were produced under United States inspection in the United States during the year 1913 approximately sixty-eight million hams and the same number of sides of bacon.

Approximately 70 percent of the hams and 70 percent of the bacon were sold by the packers in an "unwrapped" condition. The pieces were cured and smoked, labeled with a hot iron and were sold, without wrapping, at a price per pound, based on scale weight at time of sale and never at a piece price for the whole.

Approximately 30 percent of the hams and 30 percent of the bacon, after curing and smoking, were "wrapped" as hereinafter described. These wrapped hams and sides of bacon were then sold by the packers at a price per pound, based on scale weight at time of sale, the weight of the wrapping being included and charged for at the meat price, which is the same for wrapped hams and bacon. Wrapped hams and sides of bacon are never sold at a piece price for the whole.

In every case the purchaser had the option to buy wrapped hams or bacon at the same price per pound as the unwrapped goods, and the dealer who purchased the wrapped hams and bacon knew that he was charged for the weight of the wrapping at the meat price, in other words that he purchased at gross weights and that if he desired he might obtain unwrapped hams and bacon at the same price per pound.

Wrapping is a partial protection against climatic influences and the attack of insects, and on wrapped hams and bacon the packers give a limited guaranty against spoilage from these causes. On unwrapped hams and bacon the packers give no such guaranty.

Wrapping is also a partial protection against "shrinkage" or loss of weight. Wrapped hams and bacons lose some weight but not so much nor so rapidly as the unwrapped product.

The packers' guaranty against spoilage, and the partial prevention of shrinkage, are the main considerations for the payment for the wrapping.

The cost of wrapping to the packer, including labor and material, in some cases exceeds the price received by the packer for the wrapping, through selling at gross weights. In other cases the amount received for the wrapping is slightly more than its cost, if no consideration be given to the expense involved in making good on the spoilage guaranty, which applies only on wrapped meats, but when the expense of making good on the guaranty is charged against the cost of wrapping there is no measurable profit or loss to the packer in the wrapping of hams and bacon.

Various kinds of wrapping are used, depending upon the season of the year, climatic conditions and insect enemies which may be expected at the probable time and place of sale. More hams and sides of bacon are sold wrapped during the hot months of summer than during the winter, and, naturally, a wrapping which is adequate protection for meat sold in the more temperate localities is entirely inadequate to protect meat sold in the South, where the skipper fly is prevalent, and the summers are more torrid.

On 70 percent of all the wrapped hams and bacon a paper wrapping is used, either one sheet of absorbent paper alone, or one sheet of absorbent paper and one sheet of parchment paper. The parchment paper is secured by a string and a label is pasted on the paper, the whole not being sealed in any way. Even the unwrapped hams and sides of bacon are labeled, the label being burned into the meat with a hot iron.

The remaining 30 percent of the wrapped ham and bacon, or 9 percent of the whole amount produced, are wrapped in one of the following ways: In a coating of gelatine, in muslin, in burlap sacking and one sheet of absorbent paper, and in so-called wash canvas wrapping which consists of absorbent and parchment paper and a muslin sack, the latter being covered with paste. It is the custom of the trade, for the dealers, in ordering from the packer to specify the sort of wrapping they prefer as best suited to their locality and class of trade.

The weight of the wrapping varies not only with its style, but also with each particular ham and side of bacon, depending upon the size of the piece of meat and the conditions to which it has been exposed after wrapping. The sheets of paper vary in size from 24x26 inches to 32x32 inches, the packer aiming to use as small sheets as possible. This paper varies in weight even in sheets of the same size as the packer receives it, while the absorbent paper absorbs fat and moisture after it has been on the meat for some time, the quantity absorbed varying with the heat and other conditions. Any declaration of net weight of a ham or side of bacon based on the deduction of the weight of wrapping from the gross weight, would necessitate the weighing of the wrapping used upon each particular piece, and even if this were done, the net weight thus marked would not be correct, even a few days afterward, because of shrinkage in the ham and the increase in the weight of the wrapping due to absorption of fat and moisture.

The actual approximate weight of the wrapping in the case of the ham wrapped with parchment paper is about 6 ounces avoirdupois. As stated, the parchment paper wrapped hams and bacon constitute 70 percent of all the wrapped hams and bacon.

The other styles of wrapping described are used upon the remaining 30 percent of the wrapped hams and bacon, or 9 percent of the whole number of hams and sides of bacon produced. Some of these other wrappings weigh more than the parchment wrapping. In the Southern trade, and to a limited extent in other territory, the trade demands a wrapping which will protect from the skipper fly and from excessive shrinkage due to intense heat. For this trade, hams and sides of bacon are wrapped in the so-called wash canvas, a covering which experience has shown to be nearly impervious to air, and of a nature calculated to repel insects. This is the heaviest wrapping used. The meat is covered with two thicknesses of paper and finally with a cotton slip treated with a wash of a nature to keep out the air and also to repel insects. On the outer covering of a ham weighing from 15 to 16 pounds, about ten or twelve ounces of this wash is necessary to accomplish these purposes. There is no

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Court of Appeals Sustains Verdict Against Government in the Coca-Cola Case

READERS of The American Food Journal are familiar with the progress of litigation in the famous case of the United States against Coca-Cola. The action was commenced in 1911 in the District Court of the United States in the Eastern District of Tennessee, and attracted widespread attention. The roster of witnesses for both parties in the case contained the names of a small army of well-known physicians and scientific experts, while the testimony they gave was exceedingly voluminous.

The original libel charged by the Government included specifically five points as follows:

"That Coca-Cola is adulterated because it contains caffeine as an added ingredient, which may be deleterious.

"That Coca-Cola is misbranded by reason of false statements or suggestions contained in the name itself.

"That Coca-Cola is misbranded because of being an imitation of or offered for sale under the distinctive name of another article.

"That Coca-Cola is misbranded by reason of being mixed, colored, or stained by the use of coloring substances whereby damage or inferiority of the mixture is concealed.

"That Coca-Cola is misbranded because there appears on the barrels and kegs a pictorial design of coca leaves and kola nuts."

The larger amount of the testimony in the case had to do with the effects of caffeine on the human system, that product being acknowledged as one of the ingredients used in the manufacture of Coca-Cola. This question of whether or not caffeine is injurious to the human system was threshed out by the experts to a point of thorough exhaustion and it would probably be exceedingly difficult, if not, in fact, quite impossible for one to "dig up" any authentic information of value to determine the question, and which the testimony in the Coca-Cola case does not contain.

The case was decided by the lower court in favor of Coca-Cola and it was then taken to the higher tribunal by the United States Government. When appealing the case the Government withdrew a part of the issues as presented in the original libel so that in the appeal the points at issue were narrowed down virtually to the questions of whether or not caffeine is injurious to the human system, and whether or not caffeine in Coca-Cola is an "added" ingredient within the meaning of the Federal Food and Drug Act.

The decision of the Court of Appeals just handed down gives a negative answer to both of these questions, sustaining the lower court decision in each particular, constituting a complete victory and vindication for Coca-Cola. The decision in full is as follows:

UNITED STATES CIRCUIT COURT OF APPEALS, SIXTH CIRCUIT.

United States of America,
Plaintiff in Error,
vs.
Forty Barrels and Twenty Kegs of
Coca Cola,
Defendant in Error.

Error from the
District Court
of the United
States for the
Eastern Dis-
trict of Ten-
nessee.

Submitted November 10, 1913.
Decided June 13, 1914.

Before Warrington, Knappen and Denison, Circuit Judges.
Denison, Circuit Judge. This proceeding was brought by the United States to condemn a quantity of syrup called Coca-Cola. Forfeiture was claimed under the Pure Food Law (34 U. S. S. L. 768), because the syrup was said to be adulterated and misbranded. The case was tried at great length before a jury; at the conclusion of the trial, the government withdrew certain issues, and upon the two remaining matters, the Court instructed a verdict for the Coca-Cola Company, the claimant of the property. The sole question presented by this writ of error is whether there was any evidence tending to show that the article was either adulterated or misbranded within the prohibition of the act. The facts presented and the questions involved are so well set out by the District Judge in his carefully prepared opinion (191 Fed. Rep., 431)* that we refrain from further preliminary statement. The sections and clauses of the act which it seems may have some bearing on the question before us are given in the margin.†

*The parts of the libel voluntarily dismissed by the government were those matters numbered 4 and 5 in the District Judge's opinion; the statement on page 440, of 191 Fed. Rep., is erroneous in this respect.

†Sec. 6. . . . the term "food," as used herein, shall include all articles used for food, drink, confectionery or condiments, by man or other animals, whether simple, mixed or compound.

Sec. 7. That for the purpose of this act, an article shall be deemed to be adulterated . . . in the case of food . . . third, if any valuable constituent of the article has been wholly or in part abstracted . . . fifth, if it contain any added poisonous or other added deleterious ingredient which may render such article injurious to health.

Sec. 8.—That the term "misbranded," as used herein, shall apply to all drugs or articles of food or articles which enter into the composition of food, the package or label of which shall bear any statement, design or device regarding such article or ingredients or substance contained therein which shall be false or misleading in any particular . . . that for the purposes of this act, an article shall also be deemed to be misbranded . . . in the case of food: First, if it be in imitation of or offered for sale under the distinctive name of another article. Second, if it be labelled or branded so as to deceive or mislead the purchaser . . . or if it fail to bear a statement on the label of the quantity or proportion of any morphine, opium, heroin, alpha or beta eucane, chloroform, cannabis indica, chloral hydrate or acetanilid or any derivative or proportion of any such substances contained therein. . . . Fourth, if the package containing it or its label shall bear any statement, design or device regarding the ingredients or the substance contained therein, which statement, design or device shall be false or misleading in any particular; provided that an article of food which does not contain any added poisonous or deleterious ingredients shall not be deemed to be adulterated or misbranded in the following cases: First, in the case of mixtures or compounds which may be now or from time to time hereafter known as articles of food under their own distinctive names and not an imitation of or offered for sale under the distinctive name of another article, if the name be accompanied, on the same label or brand, with a statement of the place where said article has been manufactured or produced. Second, . . . and provided further that nothing in this act shall be construed as requiring or compelling proprietors or manufacturers of proprietary foods which contain no unwholesome added ingredient, to disclose their formulas, excepting so far as the provisions of this act may require to secure freedom from adulteration or misbranding.

In applying a statute to particular facts and where it becomes necessary to construe language to which opposing sides give different meanings, it is vital to have in mind the essential scope and purpose of the act. The present case well illustrates the importance of this consideration. Much of the government's contention as to the extent of the prohibition here found rests upon the theory that Congress intended to protect the public health by preventing (to the extent of the constitutional power resting in the commerce clause) the sale or transportation of deleterious foods. The opposing contention denies this broad purpose and concedes only the intent to prevent any fraud or deception in the sale of foods. The title to the act is broad enough to support the government's utmost claim as to general purpose. It is, "An act for preventing the manufacture, sale or transportation of adulterated or misbranded or poisonous or deleterious foods, etc." If there was nothing in the body of the act expressly prohibiting the sale of deleterious food, *qua* deleterious, this title would furnish some reason for expanding in that direction any terms of prohibition there might be, ambiguous enough to permit the implication (Goodlett vs. L. & N. R. R., 122 U. S., 391, 408); but we find in Sec. 11, which relates solely to importations from foreign countries, an express direction that such importation shall be wholly forbidden if

the food is adulterated or misbranded "or is otherwise dangerous to the health of the people of the United States." We have, therefore, a provision which responds to the call of the title in this particular and makes it unnecessary to resort to any otherwise unjustifiable construction for the mere purpose of giving some effect to all parts of the title. With the exception of this clause of Sec. 11, every other directly or indirectly prohibitory clause of the act relates to articles which carry the taint of deception and fraud by being adulterated or misbranded. Section 2 prohibits interstate commerce in any article "which is adulterated or misbranded within the meaning of this act" and subsequent clauses of the same section refer to "any such article so adulterated or misbranded within the meaning of this act" and to "any such adulterated or misbranded foods." The expert examination provided for by Sec. 4 is to determine "whether such articles are adulterated or misbranded." Section 7 defines when, for the purposes of the act, an article shall be deemed to be adulterated, and Sec. 8 defines the term "misbranded" as used in the act, and specifies when, for the purposes of the act, an article shall be deemed to be misbranded. Section 9 prescribes a certain immunity from prosecution when there is a guaranty to the effect that the article is not adulterated or misbranded within the meaning of the act. Section 10 provides for the seizure and forfeiture of the offending articles, but its effect is limited to an article which is adulterated or misbranded within the meaning of the act. A subsequent clause of Sec. 10 furnishes some superficial support for the broader theory of the purpose of the act by providing for the disposition of the offending article, if it "is condemned as being adulterated or misbranded or of a poisonous or deleterious character within the meaning of this act;" but this support is only superficial, because the power to condemn, given by the first part of Sec. 10, rests on the finding that the article is "adulterated or misbranded." This general reference to a poisonous or deleterious character as ground of condemnation must be to instances where that character, by incorporation into the article, causes the fatal adulteration or misbranding. Considering all these parts of the act, together with its title, we can not doubt that so far as its general purpose and intent furnish any aid for interpretation, that general purpose and intent must be deemed to be the prevention of fraud and deception, so that the purchaser can get the thing he has a right to suppose he is getting, rather than the protection of the public health to the extent of preventing the purchaser from deliberately and intentionally buying a particular food which is what is purports to be, even though a jury might think it "deleterious." If argument were needed to sustain this conclusion, it could be found in the provisions as to drugs. Foods and drugs are put on the same basis throughout, save as to matters of definition, and some detailed requirements. There can be no room to suppose that the act was intended to prohibit broadly the sale of all deleterious foods and not to prohibit with equal breadth the sale of all poisonous drugs. The latter supposition is impossible; and so the former can not be accepted. Further support will be found in the provisions which, by necessary implication, permit the sale of foods containing cocaine, morphine, and the like, provided the purchaser is properly advised of the contents. These views of the general purpose of the act have been accepted by the decisions, so far as they go (*Savage vs. Jones*, 225 U. S., 501, 533-5; *McDermott vs. Wisconsin*, 228 U. S., 115, 131; *United States vs. Lexington Co.*, 232 U. S., 399, 409).

The general language of the court in the last cited case that "the statute was intended to protect the public health from possible injury," is not at all inconsistent with the view we have expressed, because that language is used with reference to adulterations and the addition to known foods of injurious elements. The very word "adulterated" imports fraud and deception; it implies that the article is not what it purports to be.

Under the statement of facts, it is clear that the only question arising under Sec. 7 is whether the caffeine in the Coca Cola is an "added poisonous or other added deleterious ingredient which may render such article injurious to health;" and, under the assumption made by the District Judge, of which the government can not complain, and which we here adopt, but only for the purposes of this opinion—i. e., that there was evidence requiring submission to the jury to the effect that caffeine is a poisonous or deleterious ingredient which may render the Coca Cola injurious to health—it is equally clear that the turning point is whether it can be said or whether a jury could be permitted to say that the caffeine was "added" within the meaning of this clause.

It is impossible intelligently to conceive the meaning of

"added," unless we suppose a base upon which the addition is placed, and we at once meet the question: If caffeine is the addition, what is the base? For fifteen years before the passage of the act, Coca Cola had been an existing article of food (within the statutory definition of "food" and in the latter ten years of that period, it had been one of the most widely known and used articles of its general class. It was a compound; it had no distinctive base (unless water by reason of its larger proportion); it was made up of water, sugar, caffeine, phosphoric acid, glycerine, lime juice, coloring matter, flavoring matter and "merchandise No. 5." Each of these elements is more or less important; there seems to be no method of determining their relative importance; but if any one may be rejected as comparatively negligible or secondary or non-characteristic, that one is not caffeine. In the manufacturing process, water and sugar are boiled to make a syrup; this boiling is repeated, then caffeine is "added" and then the syrup is boiled once or twice more; the syrup is then put into a cooling tank and then into a mixing tank in which the remainder of the process is carried on and in which the other elements become part of the ultimate combination. It is plain as may be that without caffeine, the mixture would not be Coca Cola, and the purchaser who had been using it in its standard form fifteen years when the act was passed, and who might then buy an article of the same name which did not contain any caffeine, would rightfully think that he was deceived; and yet it is said that the act intended to prevent misleading the public is violated unless the public is thus misled.

It is another form of the same thought to say that the mere use of the word "adulterate" or "added" implies the existence of a standard; and it is a contradiction in terms to say that the use of an element necessary to constitute the standard is an adulteration of, or addition to, the standard; but to this contradiction, the argument for the government necessarily leads. So, further, we find that Clause 3 of that division of Section 7 relating to foods declares adulteration if any valuable constituent has been abstracted. Caffeine is a valuable constituent. If it is omitted, the article is adulterated, and if it is included, the article is adulterated. We must break Clause 3 to keep Clause 5.

It is urged that in case of a compound article each element is, in a proper sense, "added," and so, if any element is deleterious, it is an "added deleterious ingredient." This position not only depends in part upon what we have thought an erroneous view of the general purpose of the statute, but it destroys all force in the word "added" and gives Clause 5 of that part of Section 7 relating to food precisely the same meaning as if it read "if it contain any poisonous or other deleterious ingredient, etc." The deliberate and careful insertion of the word "added" before the word "poisonous" and again before the word "deleterious," while the word is omitted in the preceding almost identical clause relating to confectionery, can not be treated as accidental or meaningless. So to do, would violate the settled rule of construction which requires us to "give full effect to all the words in their ordinary sense" (*Bend vs. Hoyt*, 13 Pet. 263), and requires that "signification and effect shall, if possible, be carried to every word" (*Washington Co. vs. Hoffman*, 101 U. S., 112, 115), and declares it the "duty of the court to give effect, if possible, to every clause and word of a statute, avoiding, if it may be, any construction which implies that the legislature was ignorant of the meaning of the language it employed" (*Montclair vs. Ramsdell*, 107 U. S., 147, 152.)

Again, it is urged that the true test whether the deleterious ingredient is "added" is whether this ingredient is in its natural or in an artificial form. This criterion is supposed to find support in statements made during the Congressional debates and in the well-known fact that many natural articles of food, like fruits, contain elements which in the combination formed by the complete fruit are not materially harmful, but which, when extracted and administered separately, may be injurious. This criterion may often be a useful aid in applying and interpreting the statute, but to apply it as a hard and fast rule where artificially compounded foods are under consideration comes to saying, in the case before us, that if coffee berries or tea leaves, or, we take it, the complete extract of coffee berries or tea leaves, containing the amount of caffeine now in question, were put into the compound in its manufacture, there would be no violation of the law, but that if the caffeine, and that only, which was in these same coffee berries or tea leaves or in some other natural product, is put into the syrup, the law is broken. Alcohol surely might be considered a "deleterious ingredient," if caffeine may be; but can we suppose that a compound food would be obnoxious to this law if it contained five per cent

of alcohol purchased in the market ready distilled and yet that a compound otherwise the same would be within the approval of the law though it contained twenty-five per cent of alcohol distilled from grain during the process of making the compound? There has been much controversy whether "blended whiskey" could be sold under that name, but it has never been thought to be forbidden merely because its alcohol was an "added" ingredient. Many wines are "fortified" by adding alcohol, and these may be obnoxious to the law for other reasons; but if the theory now under consideration is correct, they could not be sold at all, no matter how labelled. This theory must even lead us to say that if a ground or pulverized coffee or a coffee extract is so deficient in caffeine as to be below standard, the law is violated by adding from another source caffeine enough to make the coffee of full normal strength, or to say that it is a vital distinction whether the citric acid contained in any familiar and popular acid beverage is at the time of compounding squeezed from a lemon or poured from a bottle. We can not follow the argument which brings us to those results. Not only is it without basis in the statute, but it lacks inherent cogency.

We get from Section 8 some help on the proper meaning of the phrase "added poisonous or deleterious ingredient," because, unquestionably, the two sections must be construed together and the same phrase should have the same construction in each. The proviso of the fourth paragraph of that part of Section 8 relating to food seems to be drawn with express reference to situations like the present. Congress must have known that many proprietary articles of food and drugs were upon the market under proprietary or trade names, and Congress thought fit to provide that these things should not be deemed to be adulterated unless any deleterious ingredient contained therein was "added." This recognizes somewhat more expressly than is done by Section 7 the thought that the necessity of a standard before there can be any adulteration applies as well to compounds as to simple foods, and then avoids future difficulties in application by providing that the compound article, in its distinctive and known form, should be the standard.

We do not overlook the argument that the act makes no distinction between compounds known at its date and those thereafter devised, and so that the construction which prevents an inherent element from being considered as "added" leaves the manufacturer at liberty to use any poison he pleases in making up his compound "food," provided only he gives to it and sells it under a distinctive name. This conclusion must, to some extent, be granted; yet it loses most of its apparent force when we remember the real purpose of the act and observe the express direction of the law that the maker of a proprietary food need not disclose its contents if he states the place of manufacture. It would seem a proper provision that if a proprietary food contains any ingredient fairly subject to be called deleterious, the maker should disclose on the label its presence and its extent, just as is required in numerous specific instances; but we can not make such a law. On the other hand, it is difficult to suppose that Congress intended absolutely to forbid the use in any compound of any element that a jury might later call "deleterious;" but it must be one thing or the other. The prohibition is either absolute or non-existent. The best known habit-forming drugs are selected, and implied permission is given to allow their use in compounding products for sale, provided they are named on the label; but as to the great mass of other food and drug elements which are undoubtedly deleterious if used to excess, there is no provision for naming them on the label. If they are within the definition of "added deleterious ingredient," they may never be used under any conditions or in any quantity that may be injurious to health, even though they are described in the largest of letters on the outside of the package. This way of reading the statute would practically greatly impede the progress of synthetic chemistry in foods, and we think it distinctly more unreasonable than it is to suppose that Congress, having selected and regulated the use of those things known to be particularly dangerous, thought best not wholly to forbid at that time other things from which no serious danger need be anticipated.

There is a middle view, which is sufficient for the purposes of this case and which will recognize the composite meaning of "added deleterious" rather than the separate meaning of each word. This view is that in using the word "added" with reference to a possibly deleterious food ingredient, Congress had in mind an addition above and beyond the quantity in which such ingredient was normally found in usual and customary articles of food, and that no such ingredient should be considered as "added" if it was present only in the quantity in which it existed in these common

articles of food with which every member of Congress was familiar, and which had generally been thought wholesome. For example: Creosote and other products of destructive wood distillation are, independently considered, injurious, but they have always been present in smoked hams. Can the addition of the same preservatives to the same extent to the same meat be something that Congress intended to prohibit? The boric acid, found in apples, is a preservative. If certain apples which are to be preserved are not up to the maximum in this element, did Congress intend to forbid supplying the deficiency by the same element from another source? Acetic acid may, of course, be injurious, but if, by its use, an artificial vinegar is made which is chemically and in every way equivalent to the natural vinegar familiar to the members of Congress in many compounds, would they have thought of it as a deleterious addition? No example is so clear as the very one here involved. Every member of Congress had been familiar, from childhood, with tea and coffee; perhaps most of them drank it. The average cup of coffee contains more than two grains of caffeine; the average cup of tea, one and one-half grains. A glass of Coca Cola, as consumed, contains one and one-fifth grains of caffeine. The chemical qualities and the physiological effects of the caffeine which is in the tea or coffee and of the caffeine which is in the Coca Cola are precisely the same. We are quite convinced that the use in an artificial beverage of a certain element which had been one of its characteristic elements for many years, and when such use was in a less proportion than the same element was known to make up in different natural beverages then in universal use and generally thought wholesome—that such an element so employed could not have been within the meaning of Congress when it chose the words "added deleterious ingredient."

The question arising under Section 8—the misbranding section—is to be determined by the proviso under the fourth clause relating to food. Separate reference to the first clause which forbids sale "under the distinctive name of another article" is unnecessary, because the same prohibition is repeated in the proviso under clause four. We have reached the conclusion that Coca Cola does not contain any "added poisonous or deleterious ingredients," and it is undisputed that the labels carry a statement of the place of manufacture. Hence, this proviso declares that Coca Cola shall not be deemed to be adulterated or misbranded if it was or is known as an article of food under its own distinctive name and if it is not in imitation of or offered for sale under the distinctive name of another article. It is an article of food, under the definition of the statute. That it was, at the time of the passage of the law and ever since has been, known under its own distinctive name is too clear for question, except as it is said that the adopted name can not be its distinctive name because it is the distinctive name of another article. Neither is it said to be an imitation of another article, except as these words also raise the same question whether it is sold under the distinctive name of another article. Coming to that question, and just as on the subject of adulteration we must first find the standard, we here first meet the inquiry: what is the "distinctive name of another article" under which name Coca Cola is sold? The record makes it very clear to us that there is no such other article. No article, except plaintiff's compound, is or ever has been sold "under the distinctive name," Coca Cola. These words constitute and are the distinctive name of plaintiff's product, and they are the distinctive name of nothing else. "Coca" is indicative of one article; "cola" is indicative of another, very distinct, but "Coca Cola" was not, in 1892, and (save for the general knowledge of plaintiff's article) is not now intelligently descriptive of any combination of the two. It might be medicine, food or drink; it might be to swallow, smoke or chew. These associated words as the distinctive name of any substance or combination of substances were unknown until adopted by plaintiff; that "distinctive name" is still unknown as an appellation for any other substance on the market.

The burden put upon the government to show that Coca Cola is masquerading under the distinctive name of another article is surely more exacting than the burden on one attacking the trade-mark to show that the name is sufficiently misleading as indicating the make-up of the product so that it is an improper trade-mark. We consider the latter question in our opinion this day filed in *Nashville Syrup Co. v. Coca Cola Co.*, and conclude that the name carried no forbidden deception. We need not here repeat that discussion. If that conclusion is correct, it is even more certain that Coca Cola is not guilty of posing "under the distinctive name of another article."

It follows that the judgment below must be affirmed.

Saccharin Has Favorable Decision

THE Supreme Court of Missouri has handed down a decision in a test case instituted about a year ago by F. H. Fricke, State Food Commissioner of Missouri, to determine the constitutionality of a law in that state prohibiting the use of saccharin in non-alcoholic drinks. The case was first instituted by the state of Missouri vs. Empire Bottling Co. of St. Louis. The decision of the lower court was in favor of the state, and the bottling company then appealed. The present decision of the Supreme Court reverses the lower court and discharges the defendant, this having the effect of declaring the Missouri enactment prohibiting saccharin in soft drinks as unconstitutional.

The Supreme Court's decision in full in the case is as follows:

IN THE SUPREME COURT OF MISSOURI.

DIVISION NO. 2.

APRIL TERM, 1914.

State of Missouri, respondent, vs. Empire Bottling Company, appellant. No. 18,049.

STATEMENT.

This is a prosecution under the act of April 7, 1911 (Laws 1911, page 251), prohibiting the adulteration of non-alcoholic drinks by the use of saccharin and other substances therein named. Defendant was convicted and has appealed. It is charged in the information that defendant sold "an article of food, ready for consumption, being a non-alcoholic drink, to-wit, soda water, which was then and there filled into a bottle containing about one pint, and which was then and there adulterated in this, to-wit, by having a foreign substance added thereto, to-wit, saccharin."

Defendant moved to quash the indictment because that part of the act prohibiting the use of saccharin is not within the title of the act, and is, therefore, contrary to section 28 of Article IV of our State constitution, and also because the act is class legislation contrary to subdivision 26 of section 52 of article IV of that constitution, and also because it abridges the privileges and immunities of this defendant the equal protection of the laws, contrary to section 1 of the fourteenth amendment to the Constitution of the United States. The motion was overruled.

At the trial defendant admitted that it sold to one Frank Mantz for fifteen cents a bottle of soda water containing one pint said soda water being a non-alcoholic drink, an article of food ready for consumption. H. H. Wiedemann, a chemist, witness for the State, testified that he analyzed the soda water furnished him by Mantz and found that the soda water in the bottle contained 0.0229 of one gram of saccharin.

At the close of the State's case, defendant's counsel asked for its discharge on the State's testimony, which motion was overruled. Defendant then proceeded to introduce its evidence, and the following occurred:

"Mr. Rassieur: I desire to introduce a copy of the report of the Remsen Referee Board, which I have with me here as published by the Government. It was transmitted March 6th, 1911, to the Secretary of Agriculture by Ira Remsen, chairman of the board. I offer only the report and not all the exhibits that go with the report; I also offer the supplementary report of January 13, 1912; and also the opinion of Franklin McVeagh, Secretary of the Treasury and a member of the Pure Food Board of the United States.

"Mr. Leahy: I object to the offer of these documents in evidence for the reason that they are incompetent, irrelevant and immaterial, because the law of this State absolutely prohibits the use of saccharin in non-alcoholic drinks. I might also object on the ground that these documents are merely opinions of persons, not sworn and not before the court, but I do not want to put defendant to the expense of bringing these witnesses, therefore I do not object to the evidence on that ground."

"The Court: Upon what theory do you offer that evidence, Mr. Rassieur?"

"Mr. Rassieur: On the theory that if the court finds that saccharin, when used in quantities such as the witness testified to as used in this case, the court will say that saccharin used in such a quantity is not and cannot be regarded as injurious and that therefore there was no adulteration, and

a statute which undertakes to make that illegal and forbid the use of that which is harmless is unconstitutional.

"The Court: The objection to the evidence offered by the defendant will be sustained.

"To which ruling of the Court defendant then and there, by counsel, duly excepted and still excepts.

Said report contained the following: "The conclusions reached as a result of the investigations are given in detail in the separate reports herewith presented, together with all of the data upon which those conclusions are based. The main general conclusions reached by the referee board are as follows:

"(1) Saccharin in small quantities (0.3 gram per day or less) added to the food is without deleterious or poisonous action and is not injurious to the health of normal adults, so far as is ascertainable by available methods of study.

"(2) Saccharin in large quantities (over 0.3 gram per day and especially above 1 gram daily) added to the food, if taken for considerable periods of time, especially after months, is liable to induce disturbances of digestion.

And also the following: "As a result, Messrs. Hamilton and Hough have submitted briefs; these briefs have been submitted to Dr. H. W. Wiley, Dr. W. G. Bigelow, and Dr. Kebler, of the Bureau of Chemistry, Department of Agriculture, and to Solicitor McCabe and Assistant Solicitor W. P. Jones, of that department, and these five gentlemen have submitted statements—all favoring the prohibition of saccharin—and Messrs. Hamilton & Hough have replied. And the full discussion is now before us in the printed record. The three secretaries, at the hearing on November 22nd, asked the attorneys to incorporate in their briefs the proposal of a method to admit the use of saccharin in foods under conditions and restrictions that would limit its possible daily consumption within the limits of positive harmlessness indicated by the referee board, to-wit: 0.3 gram per day; and this proposal has been submitted in definite form. And it seems to be plain—or at least most probable—that the limit of one one-hundredth of one per cent of saccharin in foods would bring the use of saccharin within the limits of positive harmlessness indicated by the referee board. But the calculation on which this is based should be further tested before adoption."

OPINION OF THE COURT.

According to the proffered evidence one would need to drink about thirteen pints of the defendant's soda water in twenty-four hours before he would get to the danger point in the use of saccharin. If such is the case, the amount of saccharin in defendant's soda water is not deleterious to health, for we cannot imagine one so addicted to its use as to consume that much. But, independent of the question as to whether such use of saccharin is deleterious, we think that the statute is an arbitrary discrimination against the makers of soda water. It may be taken for granted that saccharin is or may be used in foods and drinks which are non-alcoholic. Whether it is deleterious to health or not, it is certainly an arbitrary distinction to prohibit the use of saccharin in non-alcoholic drinks and not prohibit its use in other foods and drinks. If it is deleterious to health in one case, it would be so in the other. If it was the purpose of the Legislature to prevent the use of saccharin in soda water, not because saccharin is deleterious, but because it sweetens the soda water, then it is an arbitrary discrimination in favor of those who sweeten soda water with sugar. If the Legislature regarded saccharin as deleterious to health, it should have excluded it from all foods and drinks and not merely from non-alcoholic drinks. If the purpose was merely to prevent the sweetening of non-alcoholic drinks, it should have prohibited the use of any kind of sweetening in such drinks.

We regard this as too plain a case for a long citation of authorities. It falls clearly within the principles enunciated in State vs. Mikscek, 225 Mo. 561, 1 c. 572.

The judgment is reversed, and the defendant discharged.

REUBEN F. ROY,
Commissioner.

William, C., concurs.

Per Curiam.

The foregoing opinion of Roy, C., is adopted as the opinion of the Court.

All concur.

The National Biscuit Company Upheld

CHANCERY COURT OF NEW JERSEY RULES
IN FAVOR OF COMPLAINANT COMPANY

THE unscrupulous manufacturer or dealer realizes fully the golden opportunity open to him, if undisturbed in the initiation and dressing of his goods in packages and labels so similar to those of well advertised and popular brands as to deceive consumers. This is particularly true of foods and other articles in constant use when put up in small and attractive packages. But he has been taught that our courts are eager to give speedy protection to the rights of the honest manufacturer and to prevent deception of the public. Consequently cases of trade piracy are less frequent than formerly.

Trade-marks are property although there is no right of property in a trade-mark separate and apart from the goods to which applied. It becomes property through use in trade upon the goods and priority of use alone, without the necessity of registration under our Federal and State Laws, fixes exclusive ownership in the first user.

Registration under the Federal law offers some advantages but unregistered trade-marks receive the full protection of the law. Registration under state laws is of little benefit. In many foreign countries, particularly those in Central and South America and the West Indies, the one first registering a trade-mark holds it against the rightful owner and therefore immediate registration in those countries is all important. Manufacturers have found their goods excluded from those countries because some farsighted native has realized the possibilities of the situation and must be paid his price. Efforts are being continually made for the substitution of better laws.

Valid trade-marks must not be descriptive of the article to which applied, nor geographical, nor the name of an individual, for to permit one to exclusively appropriate such words or devices would prevent others from honestly describing their goods.

Unlike patents and copyrights, the rights of trade-mark owners are independent of statute. Nor can the owners authorize their use by others upon goods of the same descriptive properties. If done, the right to exclusive use is lost and the trade-mark is open to use by the world, for the very purpose of a trade-mark is to indicate origin of the goods. The consumer may not actually know the manufacturer, but is entitled to rely upon the fact that articles bearing the trade-mark are all from the same source. And a trade-mark has no territorial limitation.

In most cases the only relief sought against infringement is an injunction against further use, but the owner may have an accounting for profits and proven damages. These are often hard to ascertain, particularly when the goods involved are inexpensive and the volume and territory large.

Although many words and devices in use are descriptive of the article, its appearance, quality, ingredients, effect or of the place of manufacture, and cannot be exclusively appropriated, yet in many cases injunctions are issued to prevent the passing off of the goods of one for the goods of another. This is known

as unfair competition and is accomplished through the similarity in appearance of the packages and labels and in some cases of the goods themselves, where ornamentation or peculiar designs not essential to the structure are copied.

Never by chance alone do two manufacturers select the same combinations of colors, designs, devices and descriptive matter or the same peculiar style of package and here again the courts step in to protect the man who has established his business and the consumers from the business pirate. The test applied by the courts is not alone whether the man first in the field would be damaged, but also whether the public is likely to be deceived and imposed upon. It is not necessary that the two packages must be so similar, when placed side by side, as to deceive the ordinary purchaser (not the court or dealers who are experienced in the goods), for the purchasing consumer seldom has the opportunity of comparing the packages at the time of purchase.

It is the duty of those engaged in business and serving the public to seek out the business lost before great harm has been accomplished as the spurious goods are almost always of inferior quality and the lost good will of the dissatisfied consumer is hard to regain. An injunction can be had for the asking and usually the wrongdoer will not throw money away in defense of his practices but will keep what he has unlawfully gained. Whether that is little or much depends on the activity of his victim.

A case in which the above points were involved has just been decided in New Jersey, in a suit brought by the National Biscuit Company vs. Pacific Coast Biscuit Company. The decision in full as handed down is as follows:

In Chancery of New Jersey

Between

National Biscuit Company
Complainant,

and

Pacific Coast Biscuit Company, and Charles M. Warner, John C. Hanrahan, William M. Laws, Herman Wittenberg, Moritz Thomsen, Charles Hotchkiss and A. M. Brookes, Officers and Directors of said Pacific Coast Biscuit Company,
Defendants.

On Bill, &c.
CONCLUSIONS.

On final hearing on pleadings and proofs.

Messrs. Vredenburg, Wall & Carey, Mr. Charles K. Offield (of the Illinois Bar) and Mr. Earl D. Babst (of the New York Bar), for complainants.

Messrs. Collins & Corbin and Mr. William D. Fenton (of the Oregon Bar), for defendants.
Walker, C.

The object of this bill is to restrain unfair competition in trade.

The complainant and defendant companies are corporations organized under the laws of this state. Both are engaged in the same line of trade, the manufacture and sale of bakery products. The business of the defendant company is confined to the Pacific Coast States and adjacent territory, while the field of activity of the complainant company is nation-wide. The complainant's career commenced in 1898 when it acquired some of the leading bakery-plants in the

country, with which it began operations. It already had a market for its goods, brought to it by these plants, and by the exercise of a superior order of scientific and mechanical intelligence and of commercial acumen and industry, acquired a wide and enviable reputation for the high quality of its products. A market for these wares was established in the defendant's territory shortly after the complainant started business in 1898.

The principal innovation made in the bakery line by the complainant is that of housing and transmitting to the ultimate consumer bakery products with a minimum of deterioration, and practically as they leave the ovens. This is accomplished by the use of paper-cartons. Up to the complainant's advent, shipments were mainly in "bulk," that is, in barrels and wooden boxes. Paper-cartons, of the shoe-box style, with loose paper-lining, and hermetically sealed tin-boxes, were also used, but only to a very limited extent. The tin boxes were commercially too costly and the shipment in bulk was objectionable because of the tendency of the contents to absorb moisture and deleterious and offensive odors, and to breakage. Uncleanliness in the handling by the retailer was also to be reckoned with.

The paper-cartons adopted by the complainant were much smaller than those theretofore used and were of a size to permit of sales at popular prices—five and ten cents per package. These cartons are constructed by superimposing upon the carton blank, made of cardboard, a sheet of wax-paper of the size and shape of the blank, which when folded, form a unit-box, and, it is said, possess the quality and capacity of preserving the contents equal to the hermetically sealed tin-box. The cartons are of various sizes and shapes, adapted to the forms of the proposed contents; and to identify the contents as its products, and to distinguish the same from those of other dealers, the complainant adopted a trade-mark and a variety of trade-names for its various products, and peculiar and distinctive labels and wrappers to envelop the cartons, all of which, it is claimed, the defendant fraudulently simulated, to the injury and damage of the complainant's trade.

The alleged infringement of fifteen widely different styles of cartons and carton-wrappers and applied trade-names, for as many kinds of crackers or biscuits; the methods of construction of the carton and of the form of bundle-package of assembled cartons, as well as the trade-mark, is involved in this litigation.

The law relating to fraudulent or unfair competition between traders is so firmly established and has been so lucidly illustrated and defined by the courts of England and of this country, that extended citation of authorities will be profitless. The underlying principle that no man has a right to palm off his wares as those of another, thereby cheating the purchasing public and filching the business of a rival, is so essentially an element of natural justice and so solidly imbedded in our jurisprudence, that all that is necessary to quicken a court of equity is to show that in the particular instance the offense has been committed. The cases cited by counsel in their briefs exemplify the illimitable conditions and circumstances under which this simple doctrine, requiring men to be honest towards each other, may be invoked.

The case of *Wirtz v. Eagle Bottling Company*, 50 N. J. Eq., 164, is a striking example of the adaptation of the principle to unfair competition in the use of imitative labels and wrappers. The opinion in that case so fully covers the whole scope of the law applicable to the facts presently to be considered, and furnishes so clear a guide, that I am persuaded to quote from it *in extenso*. The complainant, in that case, by his industry and fair dealing, had built up a large and valuable trade as a bottler of beer and identified his goods by a peculiar and distinctive label, which label the defendant substantially copied. Vice-Chancellor Van Fleet, in granting a preliminary injunction, subsequently made perpetual, at p. 166, said:

"If we speak with accuracy, these labels cannot be called trade-marks, but they serve substantially the same purpose. They are the marks by which the complainant's goods are distinguished in the market from all like goods put upon the market by other persons, and are, for that reason, according to many decisions, just as much under the protection of the law as trade-marks are. The law protects them for the same reasons and in precisely the same way that it does trade-marks. The leading principle of the law on this subject is, that no man should be permitted to sell his goods on the reputation which another dealer has established in the market for his goods, and this principle applies with equal force to the case where the goods of such other dealer are known in the market by a label as it does to the case where they

are known by a mark which is strictly a trade-mark. No dealer can lawfully adopt the label of another dealer, or one so near like it as to lead the public to suppose that the article to which it is affixed was put upon the market by such other dealer. *Miller Tobacco Manufactory v. Commerce*, 16 Vr. 18, 24. The reasons upon which this rule rests were stated by Mr. Justice Knapp, in the case just cited, substantially as follows: While the markets are open and free to all, and fair competition should be encouraged, still every dealer must be required, for the protection of the public and to promote fair dealing, to depend for his success upon his own reputation and the quality of his own productions. If he were allowed to deal under false colors and sell his productions for those of others, the result would be that he would not only cheat the public, but also defraud him whose right place in the market he filled with spurious goods. Such competition would not be fair competition—it would be closer akin to piracy.

* * * * *

The defendant's labels were prepared under the direction of its general manager. * * * He further says, that in designing the defendant's labels he had no purpose or design of palming off the defendant's goods for those of the complainant. Admitting all this to be true, it is manifest it constitutes no defense. The vital question in cases of this kind is not what did the defendant mean, but what has he done? The legal quality of an act, resulting in injury, must be decided not by the motive with which it was done, but by the consequences which have necessarily resulted from it. The law, in civil cases, does not attempt to penetrate the secret motive which induced the act brought in judgment, but judges of its legal quality solely by the consequences which have actually and necessarily proceeded from it. It is no less a dictate of justice, than of sound reason, that every person must be understood to have intended to do just what is the natural consequence of his act deliberately done.

* * * for it is a matter of common knowledge that the ordinary buyer does not, as a general rule, exercise as much caution in buying an article for which he pays a few pennies as he does in purchasing a more valuable thing. The instances are very rare, I suppose, where a purchaser exercises as much care in buying a bottle of beer as he does in buying a bottle of whiskey, a box of cigars, or a hat or a coat.

* * * Where, as in this case, the subject-matter of the controversy is labels, and the question is, whether one is a fraudulent simulation of the other, the decision must always, to a large extent, be controlled by the evidence furnished by the labels themselves. As a general rule, they constitute the very best evidence of which the case is susceptible. That is the case here. A comparison of these labels, whether made singly or in a group, shows conclusively, as I think, that the use of the defendant's labels constituted a plain violation of the complainant's right. It is difficult to believe that one set of labels could have been made so near an exact copy, in all their special characteristics, of another set without an effort at simulation."

In 1900 the complainant, the National Biscuit Company, adopted as its trade-mark a sign or symbol known in the trade as the "In-er-seal" or "In-er-seal trade-mark." This seal is a square, and of a peculiar shade of red, with clipped corners and white lines thereon forming an ellipse, divided equally by a horizontal line, from which extends a perpendicular line halving the upper half of the ellipse, with two horizontal lines crossing the perpendicular line above the ellipse. This configuration of white lines on the seal is said to have been the sign and mark of the first printers in the early period of that art, taken by them from the Catholic church, and by the latter from Paganism, and signifies the triumph of the spiritual over the material world. These seals were placed upon each end of all the paper-cartons containing the bakery products placed on the market by the complainant, and in addition to the purpose they serve in sealing the cartons, are an attractive and conspicuous feature of the carton wrapper.

The initial trade name coined and applied by the complainant to an important part of its cracker output is "Uneeda" or "Uneeda Biscuit." The association of the "In-er-seal" trade-mark and the name "Uneeda Biscuit" formed the slogan of the complainant's business. By the expenditure of a stupendous amount of money in lavish, but judicious, advertisement, they became known to almost every man, woman and child in this country, as the identifying mark and name of the complainant's goods. I quite agree with the statement of one of the witnesses who testified, that "Uneeda Biscuit and the In-er-seal, it may be said, are woven into the fabric of the National Biscuit Company. In fact, they are the busi-

ness. As to their value they are probably worth millions of dollars to the National Biscuit Company. Its physical properties such as plants, machinery, and so forth, if destroyed, could be replaced within a reasonably short time, while the loss of the In-er-seal and Uneeda Biscuit and the good-will that goes with them, would be, if not irretrievable, at least a very great calamity."

The defendant, The Pacific Coast Biscuit Company, succeeded to the business of the Portland Cracker Company in 1899. The latter named company had been engaged in the cracker baking business at Portland, Oregon, since 1886, and in the carrying on of its business used a variety of labels, some descriptive of the package contents and others to identify its various kinds of cracker and biscuit output, and to mark them as the product of that company, but none that bore any resemblance to the "In-er-seal," the label of the complainant; none square in shape, with clipped corners, a red field with white marking and applied to either end of paper-cartons of the dimensions of those of the complainant. When the defendant bought the property of the Portland Cracker Company it took over these seals and for a time used them, substituting only its name for that of its predecessor, until about the year 1903, when they were practically discarded, and a seal known as "Gold Coast End Seal" was adopted, which was also far unlike the complainant's "In-er-seal." In 1907 this one was also abandoned, and a red-end seal termed "Swastika Red-end Seal," with clipped corners and white line markings upon a back-ground of red exactly the same shade as the complainant's seal and which is the infringing seal complained of was substituted. It is described in the record as a symbol of prehistoric origin, emblematic of a beneficent Deity, eternal life, benediction and blessing, good wishes and good augury, and was and is used by Indian basket makers and blanket weavers, potters and silversmiths, and is known as the Navajo Indian cross, and was well known and in use as a religious emblem in India fifteen centuries before the Christian era. Like the complainant's "In-er-seal" it is being used by the defendant on both ends of paper-cartons of identically the same size and shape as the complainant's cartons. The two labels, the "In-er-seal" and "swastika" differ only in their markings. Laid side by side, and disassociated from the cartons, the resemblance is not marked; but when the defendant's seals are applied to the end of cartons resembling, as to size, shape, wrapper application, and euphony of coined names, the similitude is striking, and when thus associated is of a character calculated to mislead and deceive the unwary and unsuspecting purchaser.

The federal courts have had occasion, by injunction, to protect this complainant in its seal and seal application against an infringing seal, under circumstances much like those present in this case. *Ohio Baking Company v. National Biscuit Company*, 127 Fed. Rep. 116; *National Biscuit Company v. Swick*, 121 Fed. Rep. 1007.

The claim of the defendant that it and its predecessor, the Portland Cracker Company, used a red-end seal, square in outline with clipped corners, upon the end of cartons, to denote its wares, prior to the adoption by the complainant of its In-er-seal, is not sustained by the testimony. Moreover, the red-end seals which were used by the defendant were, as I have already stated, discarded for the "Gold Coast Seal" in 1903.

Inspection and comparison of the cartons of the complainant and defendant, of the nomenclature and wrapper embellishment, and of the red-end seal application, are sufficient to satisfy me of the copying by the defendant of the complainant's trade-name and carton and carton-wrappers. I cannot conveniently deal with the cartons collectively, nor will it be possible, within the limits of these conclusions, to advert in detail to all of the points of similarity between the two sets of cartons, to which my attention has been called, and, therefore, reference will only be made to the prominent features.

Generally, as to size, shape and capacity (and the fifteen cartons of the complainant differ in these respects), it may be said, that the defendant's cartons are exact and substantial counterparts of the complainant's. The red-end seal on both ends of the infringing cartons, and the superimposed wax-paper interior, are also uniform points of likeness. The resemblances in other respects, submitted by the complainant, I will take up in the order in which the infringements are charged in the bill.

1. This relates to the red-end seal already disposed of.

2. Complainant's "UNEEDA;" Defendant's "ABETTA" BISCUIT. The wrappers of the two cartons to which these words are applied are of a dark body color, with white

parallelogram decorations. The style of type and the location of the display of the name of the biscuit and of the reading matter, is the same, and the latter conveys the same meaning. That the complainant is entitled to the exclusive use of this coined word, as applied to crackers or biscuits, seems to me to be beyond question, and this extends to any word similarly applied, which rings with the same tone. "Abetta" was coined by the defendant with the knowledge of the use and application by the complainant of the suggestive name "Uneeda." This, coupled with the circumstances of two consecutive abandonments by the defendant of similar and graduating, but less offensive infringing cartons, and the obvious purpose of creating the impression of an alliance between the two biscuits, and of superiority in that of "Abetta" (a better than Uneeda), evinces that the selection by the defendant of the word "Abetta" was intended to bring to it profit from a confused purchasing public.

3. Complainant's "NABISCO;" Defendant's "PARFAIT" and "FIESTA." The word "Nabisco" is made up practically of the initial syllable of each of the words of "National Biscuit Company." Both packages are of tin. The contents of each is a sweet cracker. The color scheme of the wrappers is the same. It is of a white background with red and gold decorations, clearly a case of copying.

4. Complainant's "SOCIAL TEA BISCUIT;" Defendant's "ELITE BISCUIT." There is a pronounced resemblance in the decorations and appearance of these two packages. "Social" and "Elite" convey the same impression, and the substitution of the latter for the former on the defendant's cartons evinces but a single motive: confusion.

5. Complainant's "UNEEDA MILK BISCUIT;" Defendant's "ABETTA MILK BISCUIT." These are as nearly alike as "two peas in a pod." The answer of the defendant respecting its carton and its statement that it has stopped making it, impliedly confesses copying.

6. Complainant's "OYSTERETTES;" Defendant's "TOKE POINT OYSTERETTES." The word "oysterettes" was coined by the complainant and applied to a particular brand of its crackers, in the year 1901. The word is indicative of the contents of the cartons. Up to 1909 the complainant had marketed some fifty millions of these carton contents, under this trade name, and, on the Pacific coast, in excess of a million. The claim of the defendant that its predecessor originated and applied this name to a brand of its goods prior to the adoption by the complainant, is not borne out by the testimony. The prominent eye-object on the carton is, of course, the word "Oysterettes." The defendant's "Toke Point" is printed with type comparatively obscure; the boxes are of the same size.

7. Complainant's "FIG NEWTONS;" Defendant's "FIG SULTANA." The copying here is manifest. The body-color of the wrapper in each carton is white, with gold scroll work embellishments and red-end seal. Obviously the defendant's carton is an imitation.

8. Complainant's and Defendant's "MARSHMALLOW Dainties." The complainant was the first to originate and apply this trade-name to one of its carton bakery products. This was in 1905. Up to the time of the taking of the testimony in 1909, it had sold under this name some five million of these carton contents. The exact trade-name has been appropriated by the defendant, and is the subject of complaint.

9. Complainant's "ZU ZU;" Defendant's "HOO HOO" GINGER-SNAPS. "Zu Zu" and "Hoo Hoo" are merely catch words, with the same general sound when spoken, and not widely different to the non-discriminating when printed. The words respectively on the two cartons have the same general appearance, and with the box arrangement and red-end seals, show similarity, and leave the impression that imitation was intended. "Zu Zu," as trade-name was adopted by the complainant in 1901, and applied to ginger snaps. The sale of these cartons to June, 1909, was approximately one hundred million, and over a million in the Pacific coast states. The defendant claims the right to the use of "Hoo Hoo" because of prior appropriation by its predecessor. The record does not satisfy me that this contention is well founded.

10. Complainant's "FROTANA;" Defendant's "MARI-TANI" FRUIT BISCUIT. Similarity of size of cartons, of wrapper coloring, of red entering largely into the decorations, the red-end seal application, the fruit biscuit contents, and the confusion between the two names as to pronunciation of their ending syllables, taken as a whole, evidence copying.

11. Complainant's and Defendant's "COCOANUT Dainties." This term was originated by the complainant as a

mark for one of its products. The trade-name has been copied. Both cartons are of the same size. The general arrangement of the lettering, the light color of the two boxes and the red-end seal, all tend towards confusion.

12. Complainant's "OLD TIME SUGAR COOKIES"; Defendant's "OLD FASHIONED SUGAR COOKIES." The only change made by the defendant in appropriating this trade-name is the substitution of the word "Fashioned" for the word "Time," both of which, in connection with the remainder of the name, have the same significance. The same size and shape of the carton, of the white colored wrappers, and the application of the red-end seal, complete the likeness.

13. Complainant's "CELEBRATED ZWIEBACK"; Defendant's "GENUINE ZWIEBACK." These packages are approximately of the same size and shape. The German and English printed matter bears comparatively the same appearance and meaning. Aside from this and the red-end seal application, there does not appear to be other similarity.

14. Complainant's "FANCY ASSORTMENT"; Defendant's "FANCY ASSORTED CAKES." The size and dress of these cartons have a single eye appearance. The term applied to the defendant's carried with it the same meaning as that adopted by the complainant. The decorations, as to red border-lines, are attracting similarities.

15. Complainant's "OATMEAL CRACKERS"; Defendant's "ABETTA OATMEAL CRACKERS." Both wrappers are green. The shade of the defendant's varies slightly from that of the complainant's. The prominent sight object on both is "Oatmeal Crackers." On the defendant's in dim type and small print, apparently intended not to be readily observed, is the word "Abetta."

16. Complainant's and Defendant's "ANIMAL BOX." These seem to be counterparts, even to the cord handle. Here the copying is complete.

The history, as disclosed by the voluminous record, of the progressive steps of the defendant in the work of seal imitation, which culminated in the adoption of the "Swastika" seal, read in connection with the history relating to the constant advance in copying, and the gradual approach by the defendant in the use of cartons and wrappers, in appearance like those of the complainant, convinces me that the "Swastika" red-end seal was fashioned and applied by the defendant to the ends of its cartons, and that these cartons and wrappers and trade-names, so much like those of the complainant, were simulated by the defendant for no other purpose than to mislead the public into purchasing its goods for those of the complainant's, and thus to purloin the complainant's business. I cannot escape this conclusion.

The Portland Cracker Company and the defendant built up a cracker trade, with seals of a distinctive type, the more prominent and generally used one of which was a red seal with a boy sitting on a cracker-box, apparently exhibiting a cracker in each hand, dividing the words, "Our Brand." The defendant also created its own style of cartons and wrappers to individualize and distinguish its output. After the complainant entered the industry and introduced its novel and successful methods a campaign of simulation upon the part of the defendant began. Seals were abandoned and cartons and carton-wrappers of the defendant's selection and origin were from time to time discarded and eventually replaced by those the subject of this suit. The deadly parallel between the entire line of the complainant's and defendant's seals, cartons, carton-wrappers and trade-names is so conspicuous that it requires no great perspicuity to observe that the defendant's present methods of displaying and vending its wares are not attributable to any desire on its part to honestly build up a trade of its own, but rather that they are the culmination of a premeditated and single purpose of dealing under the cover of the good-will of a successful rival.

It is unnecessary in these passing-off cases to find intentional fraud or that it be shown that anyone has been actually deceived to entitle a complainant to protection. It need not appear that there is precise copying of any one of the cartons of the complainant. In *Ball v. Siegel*, 116 Ill., 137, it was said:

"It is true, that in cases of this kind, as a general rule, exact similitude is not required to constitute an infringement, or to entitle the complaining party to protection; but if the form, marks, contents, words, or other special arrangement or general appearance of the words of the alleged infringer's device are such as would be likely to mislead persons in the ordinary course of purchasing the goods, and induce them to suppose that they were purchasing the genuine article, then the similitude is such as entitles the injured party to equit-

able protection, if he takes seasonable measures to assert his rights and prevent their continued invasion."

And Vice Chancellor Van Fleet, in the Wirtz case (50 N. J. Eq. at p. 168) puts it thus:

"If it appears that the resemblance between the two labels is such that it is probable in the sale of the goods of the parties, the one will be mistaken for the other, enough is shown to make it the duty of the court to interfere. *Edelsten v. Edelsten*, 1 De. G., J. & S. 185, 200. As was said by Mr. Justice Clifford, in *McLean v. Fleming*, 96 U. S. 245—a case in which all the principles pertinent to the case in hand were stated with great clearness and fullness—no rule, as to what degree of similarity must exist in order to constitute an infringement, can be laid down which may be applied to all cases. All that can be done in that record is to say, that where the similarity is sufficient to convey a false impression to the public mind, and is of a character to deceive the ordinary purchaser, buying with the caution usually exercised in such transactions, there sufficient ground exists to entitle the injured person to redress. There are cases which lay down a more liberal rule in favor of persons claiming protection, and declare that if the resemblance is only such as is calculated to deceive the careless and unwary, a sufficient degree of similarity will exist to justify the court in interdicting the use of the counterfeit."

The facts in the case *sub judice*, in my judgment, abundantly establish that the defendant's cartons and carton-wrappers, its seal trade-mark and trade-name, associated as they are, tend towards deceiving and are likely to deceive the purchasing public into the belief that the defendant's crackers and biscuits are those of the complainant.

The carton formation and the bundle packages are not the subject of exclusive appropriation by the complainant, as devices to mark and indicate its products. The cartons known as the "Peter's Patent" were declared in *Union Biscuit Company, et al. v. Peters*, 125 Fed. Rep. 601, as not a patentable invention. There can, of course, be no monopoly of the shape, size or capacity of a box. The lining of such boxes, with wax or paraffine paper superimposed thereon, and forming a unitary structure capable of inter-folding at the ends, for the enclosing of perishable goods, is a system or method which, it seems to me, must necessarily be common to all bakers. I have not a doubt but that the complainant used this form of package before the defendant, and that the secondary purpose of the defendant in adopting it, was a part of its general plan of imitating the complainant's line of operation. Nor do I think it can be disputed that, in connection with the other simulations which have already been pointed out, this particular one failed of its mission. This may also be said of the bundle package. Instead of using wooden boxes to enclose for shipment an assembled assortment of filled cartons, the complainant used paper shaped into box form. The only service in this case of the imitation of the carton package and the bundle package is to emphasize the trend of the defendant towards copying the complainant's style.

There will be an injunction restraining the defendant, including the director-defendants (for the sake of convenience I have heretofore referred to all of the defendants as one), from putting up and selling or offering for sale:

(a) Any carton of bakery products having thereon an imitation of complainant's "In-er-seal" trade-mark, calculated to mislead or deceive, like the defendant's "Swastika" trade-mark. This shall not be construed to restrain the defendants from selling such cartons with their asserted trade-mark thereon, provided the trade-mark is so differentiated in general appearance and application, from the complainant's trade-mark, that it is not calculated to deceive the ultimate ordinary purchaser.

(b) Any carton of bakery products having thereon an imitation of complainant's "Uneeda Biscuit" trade-name, calculated to mislead or deceive, like those on defendant's carton "Abetta Biscuit."

(c) Any carton of bakery products having thereon an imitation of complainant's trade-names "Uneeda Milk Biscuit," "Oysterettes," "Marshmallow Dainties," "Cocoanut Dainties," and "Oatmeal Crackers," calculated to mislead or deceive, like those on defendant's cartons respectively "Abetta Milk Biscuit," "Toke Point Oysterettes," "Marshmallow Dainties," "Cocoanut Dainties," and "Abetta Oatmeal Crackers."

(d) The particular forms of cartons or packages referred to in the bill of complaint and identified therein as "Complainant's Exhibit Defendant's Abetta Biscuit and Red-end Seal Carton No. 2," and "Complainant's Exhibit Defendant's Infringing Packages Nos. 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13,

(Continued on Page 310.)

Recent Laws and Rulings

(Maine.) A city ordinance requiring the inspection of all meat to be sold within the precincts of a city is constitutional; merely being an exercise of police power in preserving the public health. The Supreme Judicial Court of Maine rendered the above decision in *State vs. Starky*, an indictment for a violation of an ordinance of Haulton, Maine. The ordinance provided that "carcasses of neat cattle, sheep or swine wherever slaughtered shall not be sold or offered for sale in the town of Haulton unless they have been inspected at the time of slaughter by an official inspector and bear the stamp of approval of said inspector in like manner as those inspected by the United States Bureau of Animal Industry for Interstate trade." The defendant having failed to abide by the conditions of the ordinance was brought before the court charged with its violation. His contention was that the ordinance was unreasonable and illegal, because it is against ancient custom, is indefinite and does not provide for the payment of the inspection called for in the same. On behalf of the State the contention was that the ordinance is a proper exercise of the police power of the State as delegated by the constitution giving the Legislature full power to make and establish all reasonable laws and regulation for the defense and benefit of the people of the State.

The court in holding the ordinance valid said: "The Legislature (R. S. c. 4, sec. 93, cl. 3) has provided that towns, cities, and village corporations may make and enforce ordinances 'respecting infectious diseases and health.' Salutory laws relating to contagious diseases, and the enforcement of proper restraints in relation thereto have been passed from time to time, the wisdom of which cannot be questioned. In such cases, as in the case at bar, individual convenience and profit must be enjoyed in proper subjection to and observance of the laws affecting the public health which is at the foundation of the public good. These laws affect the commonwealth, are of the highest importance, and the necessity for additional safeguards had increased with increasing population and the many new agencies and methods of distributing meats and other articles of food to the consumer. The subject has engaged the attention of all legislative bodies, state and national, and the end sought justifies a continual active interest in this essential element of the public good. The ordinance must be held valid."—*State vs. Starky*, 90 Atl. Rep. 431.

(Mass.) In the case of *Commonwealth vs. New England Maple Syrup Company*, the question presented for adjudication by the court is one concerning the adulteration of maple syrup. The New England Syrup Company was convicted in the Superior Court of Middlesex County for having sold adulterated maple syrup. Exceptions were taken to the ruling and the matter appealed to the Supreme Judicial Court. The charge was that the company had sold to one Dosteller "a certain article of food, to-wit, syrup, said syrup so sold as aforesaid being then and there adulterated at the time of said sale within the meaning of Revised Laws of Mass. c. 75, sec. 18."

The higher court, in affirming the conviction, said in part: "There is no question that a syrup was sold, and the only question is whether it was adulterated within the meaning of either of the sections of the law. As to the fourth section: This section declares food to be adulterated if it is imitation of or sold under the name of another article. It is strongly argued by the commonwealth that this Golden Tree syrup, consisting of a compound of maple sugar, granulated sugar and water, was in imitation of maple sugar syrup. We see nothing in the labels upon the bottle in which the syrup was sold, or upon the cork, calculated to show any attempt at such imitation; and the mere facts that the consistency of the two syrups was the same, and that the color of the compound was the same as one of the various colors of pure maple syrup, are not enough. Nor was the compound sold under the name of another article. Dosteller did not order pure maple syrup, but Golden Tree Syrup. He received what he ordered. No deception seems to have been practiced upon him. Plainly the article ordered and delivered was the blend known as 'Golden Tree Syrup,' and it does not appear to have been known by any other name. So far as the prosecution rests upon this clause it fails. As to the eighth section of the act: This clause as originally enacted declared an article of food to be adulterated 'if it contains any added

antiseptic, or preservative substance, except common table salt, saltpetre, cane sugar, alcohol, vinegar, spices, or, in smoked foods, the natural products of the smoking process; but the provisions of this definition shall not apply to any such article if it bears a label on which the presence and the percentage of every such antiseptic or preservative substance are clearly indicated.' This clause was amended as follows, to-wit:

"But this paragraph shall not be construed as permitting the use of cane sugar in maple syrup, maple sugar, honey, cocoa, or any other food product in which the presence of cane sugar as a preservative is unnecessary."

"We are of the opinion that the words 'in which the presence of cane sugar as a preservative is unnecessary' do not apply to anything except 'any other food product,' and that the effect of the amendment is to prohibit the mixture of cane sugar as a preservative with any of the articles immediately preceding. Under this interpretation of the amendment the article sold was an adulterated syrup and could be sold only in the manner prescribed in the clause. It is suggested by the defendant that the Golden Tree Syrup, although a blend, was of itself a well known article and unit of food, but this is not made to appear in the agreed statement; and in this respect the case differs from *Adams vs. New England Maple Syrup Company*, where it appeared that the blend was a well known article in the trade. The defendant's request for a verdict of not guilty was rightly refused. Under the terms of the report the conviction stands. So ordered."—*Commonwealth vs. New England Maple Syrup Co.*, 105 N. E. Rep. 453.

(Missouri.) Defendant, a clerk in the employ of a commission company, was proceeded against in the St. Louis Court of Criminal Correction for selling eggs in violation of Statutes 1909, sec. 6592, it being charged that the eggs fell under the designation of "adulterated food," in that they consisted wholly or in part of diseased, filthy, decomposed, putrid and rotten animal substance and were unfit for food.

On trial before the court, a jury having been waived, defendant was found guilty. He duly perfected his appeal to the St. Louis Court of Appeals.

The review of the case before the higher court disclosed the fact that the purchaser of the eggs had called at the commission company for which defendant was working and had ordered one case of eggs. Defendant answered the telephone and took the order. After his employers had passed upon the purchaser's credit, defendant set aside sufficient eggs to fill the order. The question presented is whether defendant or his employers were liable for the sale contrary to law. The Court of Appeals in making its decision reversed the holding of the lower court, saying that a clerk of a dealer, who as such merely receives an order, and, on it being accepted by the employer, selects and ships out the goods, is not within the 'Adulterated Food Act' declaring guilty of a misdemeanor "any person, firm, association, or corporation who shall sell adulterated food."—*State vs. McCormick*, 165 S. W. Rep. 815.

(Continued from Page 309.)

14, 15 and 16 respectively," which shall by reason of the collocation of size, shape, colors, lettering, spacing and ornamentation, present a general appearance as closely resembling complainant's exhibits respectively referred to in the bill of complaint and marked as "Complainant's Exhibit Complainant's Cartons Trade-name Uneeda Biscuit Wrapper No. 2," and "Complainant's Exhibit Complainant's Cartons Nos. 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15 and 16," as do the said defendant's respective infringing packages afore-mentioned, but this shall not be construed as restraining the defendants from selling packages or cartons of the size, weight and shape of complainant's packages, nor from using the respective colors as wrappers for such packages, provided such packages are so differentiated in general appearance from the said complainant's respective packages that they are not calculated to deceive the ultimate ordinary purchaser.

The complainant's prayer for an accounting will be denied upon the grounds and for the reason stated by Vice Chancellor Stevenson in *The International Silver Co. v. William H. Rogers Corporation, et al.*, 66 N. J. Eq. 140.

The complainant is entitled to costs.

State Laws Against Fraudulent Advertising

Reprinted from *Printers' Ink*.

THE importance to advertising men of familiarity with the various state laws regulating advertising needs no emphasis. The following list has been compiled from the text of the various statutes as furnished by the secretaries of state of the several states. It is not presented as a complete digest of all laws affecting advertisements, for no attempt has been made to include the laws against specific types of medical copy which describe symptoms of disease or the multitude of local ordinances. The former have little or no interest for readers of *Printers' Ink*, and the only effect of reproducing them would be a slimy trail across the page, and to collect and classify the different local ordinances would tax the capacity of a well-equipped legal information bureau. There are, in addition, various laws regulating specific forms of advertisements, such as bankrupt stocks, divorce notices, real estate sales, prize offers for the solution of puzzles, and a sizeable list of "blue-sky" laws regulating the advertisement of securities. These are referred to only when they form part of statutes regulating fraudulent advertising in general.

Of the general laws forbidding fraudulent advertising there are three classes: The *Printers' Ink* Model Statute, the Model Statute amended, and the Massachusetts form. To put it briefly, the *Printers' Ink* Model Statute forbids false statements of fact by the man who has the goods for sale. It does not penalize statements of mere opinion, does not include the publisher or the agent unless the advertisement refers to commodities or services actually offered by them, and does not make it necessary to prove intent to deceive. In some states the model statute has been amended (and emasculated) by the addition of the word "knowingly," or by some phrase which makes it necessary for the prosecution to prove what was in the advertiser's mind when the advertisement was written. Thus the publication of a false statement is no crime unless it be shown that the advertiser knew it was false, or intended to deceive somebody with it.

The complete text of the following statutes is on file in the offices of *Printers' Ink*. It can be obtained by anyone by addressing the proper secretaries of state.

SUMMARY OF STATE LAW AGAINST FRAUDULENT ADVERTISING.

Connecticut.—Chapter 65, Acts of 1913. Penalizes false statements concerning the "nature, quality, method of production or manufacture, or cost of any goods." Contains the word "knowingly." Penalty, \$10 to \$500.

Indiana.—Section 347, Acts of 1913. Same text as the Massachusetts law.

Iowa.—Chapter 309, Laws of Thirty-fifth General Assembly (1913). The *Printers' Ink* Model Statute, amended by an added clause which reads, "with intent to defraud directly or indirectly." Special exemption is provided for publishers and agents who accept or place advertising in good faith. No special penalty is specified.

Maryland.—Bill now pending in legislature—similar to the Massachusetts law.

Massachusetts.—Chapter 489, Acts of 1912, amending Chapter 397, Acts of 1902. Penalizes false statements of fact concerning the quantity, method of production or manufacture, cost of production, cost to the advertiser, the present or former price, or the reason for the price." Also penalizes false statements concerning "the manner or source of purchase, or the possession of prizes, awards or distinctions." Contains the word "knowingly." The employee who makes the false statement is specifically included in addition to the employer. The penalty is \$10 to \$500 for each offense.

Minnesota.—Chapter 51, Acts of 1913. The *Printers' Ink* Model Statute. Penalty, that fixed by statute for misdemeanor.

Michigan.—Act 276, Public Acts of 1913. The *Printers' Ink* Model Statute amended by adding the word "knowingly." Clause specifically exempts publishers who receive copy from others without knowledge of its falsity. Penalty, \$25 to \$200, or imprisonment in the county jail for 90 days, or both.

Nebraska.—Senate File 188, Acts of 1913. The *Printers' Ink* Model Statute. Penalty, \$25 to \$100.

New Jersey.—Assembly Bill 734, 1913. The *Printers' Ink* Model Statute. Penalty, \$1,000, or one year or both.

New York.—Section 421 of the Penal Code, amended by Chapter 590, Acts of 1913. Same as Massachusetts law, with the exception of the clause relating to separate responsibility of employees, which does not appear. Clauses are added regulating the sale of real estate by means of prizes offered

for the solution of puzzles, etc. Penalty, as provided for misdemeanors.

North Dakota.—Chapter 3, Acts of 1913. The *Printers' Ink* Model Statute. A section is added specifying that it shall be the duty of the state's attorneys, sheriffs, police officers, health officers and food commissioners to enforce the statute. A second added section extends the statute to cover any person "who aids another to violate the same." Penalty: first offense, \$10 to \$100; subsequent offenses, \$100 or 60 days in jail, or both.

Ohio.—House Bill 104 (1913 Session). The *Printers' Ink* Model Statute. Penalty, \$10 to \$100, or imprisonment in the county jail 20 days, or both.

Oregon.—Section 2230. Lord's Oregon Law. Penalizes false statements concerning the "quantity, quality, value, price, method of producing or manufacture of merchandise or professional work, the manner or source of purchase of merchandise, or the motive or purpose of any sale." Contains the word "knowingly." Penalty, \$10 to \$50, or imprisonment 20 days, or both.

Pennsylvania.—Act No. 8, 1913, General Assembly. Penalizes false statements concerning the "quantity, quality, value, merit, use, present or former price, cost, reason for the price, motive or purpose of a sale, method of cost or production, possession of rewards, prizes or distinctions, of the manner or source of purchase." Contains the word "knowingly." Penalty, a fine not to exceed \$1,000, or imprisonment not to exceed 60 days, or both.

Rhode Island.—Bill now pending in legislature. The *Printers' Ink* Model Statute. Amended by adding the word "knowingly."

South Dakota.—Chapter 15, Acts of 1913. Same text as Massachusetts law. Penalty, \$10 to \$100 for each offense.

Utah.—Chapter 22, Acts of 1913. Any person who, on his own behalf or as agent, employee or representative, "shall knowingly produce, publish, print, use, circulate, display, or transport, any false, fraudulent or misleading advertisement," or shall cause any of those things to be done, is declared to be guilty of a misdemeanor. Section 2 defines an advertisement as "any notice or announcement made by a handbill, placard, sign, newspaper, magazine or other public print, or by an oral proclamation." Section 3 declares "objectionable and pernicious within the meaning of this Act: Advertisements of sales of 'damaged goods,' of 'fire sales,' of 'bankrupt sales,' of 'wreck sales' and the like, where merchandise not a part of such stock represented in the advertisement is sold, and all other advertisements wilfully designed or calculated to deceive or mislead the persons to whom they are directed." No specific penalty provided.

Washington.—Chapter 34, Acts of 1913. The *Printers' Ink* Model Statute. An added clause specifically exempts owners, publishers, agents and employees of newspapers who accept advertising in good faith. Penalty, as provided for "misdemeanor."

Wisconsin.—Chapter 510, Laws of 1913. The *Printers' Ink* Model Statute amended by the addition of a clause reading, "for the purpose of defrauding the public." This is equivalent to the insertion of the word "knowingly." A clause exempts publishers who accept copy in good faith. Penalty, \$10 to \$200, or imprisonment not more than 90 days, or both.

Following is the complete text of the *Printers' Ink* "Model Statute" which is law in six states, as indicated above:

"Any person, firm, corporation or association who, with intent to sell or in any wise dispose of merchandise, securities, service, or anything offered by such person, firm, corporation or association, directly or indirectly, to the public for sale or distribution, or with intent to increase the consumption thereof, or to induce the public in any manner to enter into any obligation relating thereto, or to acquire title thereto, or an interest therein, makes, publishes, disseminates, circulates, or places before the public, or causes, directly or indirectly, to be made, published, disseminated, circulated, or placed before the public, in this state, in a newspaper or other publication, or in the form of a book, notice, hand-bill, poster, bill, circular, pamphlet, or letter, or in any other way, an advertisement of any sort regarding merchandise, securities, service, or anything so offered to the public, which advertisement contains any assertion, representation or statement of fact which is untrue, deceptive or misleading, shall be guilty of a misdemeanor."

BAKING POWDER CO. USING GOVERNMENT FRANK TO MISLEAD DEALERS.

IT is believed nothing that has happened in recent years which has so stirred the grocery trade of the country and the food officials as well, as the mailing under government frank of 150,000 copies of the so-called Broussard Bill, which purports to require the use of albumen in baking powder. The fact that this bill was mailed in official envelopes caused many retail grocers to believe that it was already a law with the result that the baking powder trade has been generally disrupted. The *Interstate Grocer* of St. Louis has taken the matter up vigorously, and we reprint herewith the articles on this subject which have appeared in this publication.

As showing the extent to which the fight for and against albumen in baking powder has gone, to which attention has previously been directed by the *Interstate Grocer*, numerous complaints have come to this paper this week regarding the mailing of copies of the Broussard bill to retailers and jobbers generally, particularly the manner in which the deception is being practiced, thereby causing much confusion among the retailers and severe criticism on the part of other manufacturers for the manner in which the Calumet Baking Powder Company of Chicago is misleading the trade.

The Broussard bill, No. 16,349, is being sent out under Congressman Broussard's frank, free of postage, and the dealer who is not posted is given the impression that the bill which compels the inclusion of egg albumen in baking powder and to prohibit the manufacture or sale of any powder that does not contain albumen is the law and effective July 1. The proposed bill carries with it a fine of \$500 for the first offense and not more than \$1,000 for each succeeding violation and in addition such baking powder which does not meet the provision of this ridiculous bill is subject to confiscation, thereby causing loss to the dealer.

IS A CLEVER DECEPTION.

No one conversant with the situation treats the Broussard bill seriously. On the contrary they look upon it as a huge joke without a possible chance of passage, but in mailing the bill out to retailers and jobbers throughout the United States, unless informed of the actual situation, the reader figures that it is a law and will be operative July 1, 1914, when in truth it was only introduced the 7th of last month, is not a law and has not one chance in a million to become one.

The Calumet Company, however, has seized the opportunity and is making as much capital as possible, and the *Interstate Grocer* is advised that the mailing of the bills is being followed up by salesmen for the company who call attention to the provisions of the bill and lead the retailers to believe that it will be illegal to sell baking powder after July 1 that does not contain albumen. One concern advises that its sale of baking powder has been materially lessened because of the scare given the grocers that they are subject to a heavy fine if they sell albumenless baking powder.

Dealers in baking powder and wholesale grocers are receiving numerous inquiries from their customers, many of whom are holding off purchasing the various brands because they do not contain albumen. A great deal of unnecessary annoyance is being caused as a consequence, but when the facts are related the retailers quickly see that they are being made fools of and while temporarily aiding the Calumet Baking Powder Company, the eventual result is a boomerang.

FRANK LENDS OFFICIAL COLOR.

Congressman Broussard is receiving much criticism because he is lending his government frank to the Calumet people in order to circulate copies of his bill throughout the United States to 150,000 merchants in the grocery trade, the Washington correspondent of this paper advises, thereby spending the government's funds in the interest of a private corporation in order that it might be placed in a position to lend official color to its bill and exploit its own business to the serious injury of other baking powders, and to the retail dealers as well. The facts were wired to the *Interstate Grocer's* Washington correspondent and his findings are published in another column.

The Calumet Company has, for years, made capital out of the fact that because its powder will foam with albumen in it that it is a better powder than those which do not contain this ingredient and has succeeded in making many housewives believe in that theory when, as a further fact, it is generally acknowledged that egg albumen in baking powder is

nothing more than the second wrinkle on a pig's tail—more ornamental than useful.

As a consequence, many food commissioners have ruled against its use as an adulterant and deception, and have prohibited its use in baking powder, since it serves no purpose whatever in baking. Among the food commissioners who have condemned its use are Dr. E. F. Ladd of North Dakota, James H. Wallis of Idaho, Mickle of Oregon, J. S. Abbott of Texas, Dr. Cogswell of Montana, Dr. J. S. Crumrine of Kansas, and the New Hampshire State Board of Health. The United States food officials have never taken any stand for or against, but have assumed the attitude that it did not help or hurt baking powder, therefore was harmless.

ALBUMEN IS DECEPTION.

In Texas, after Commissioner Abbott had ruled against the use of albumen and set February 1 as the day when no more baking powder would be allowed in the state, or manufactured therein, the Calumet people obtained a temporary injunction holding up the enforcement of the Commissioner's ruling. This litigation hung fire until May 18 last, when the Attorney General for Texas moved in the Federal Court that the bill filed by the Calumet Company be dismissed, which was granted by U. S. Judge Maxey. This puts the situation in Texas back to the ruling prohibiting the use of albumen, and while there has been a change in commissionerships in that state, it is understood that Food Commissioner Yates, who succeeded Abbott, holds the same view as to its interdiction, though the *Interstate Grocer* has no definite information that he has taken any action.

A St. Louis manufacturer told the *Interstate Grocer* that he puts albumen into his baking powder just as a matter of form but that in reality it does not help the product one iota and so advises his customer, in addition telling them that it is a deception designed to mislead the housewife by making her believe it has leavening powers when in reality it has none.

The objection of these commissioners is typified in the bulletin issued by the New Hampshire State Board of Health, which says on the subject:

"The amount of egg albumen present is so small that it can have no material value either as a food constituent or for leavening purposes. It is known that this small quantity is added for the deliberate purpose of causing such powder to give a fictitious appearance of quality when treated by the so-called water test for determining the leavening value. In this test the trace of albumen serves to confine the gas, causing the contents to rise higher in the tumbler than would otherwise occur. Because of the palpable element of fraud involved, powders of this class are to be frowned upon. In fact, their sale has recently been held as illegal in certain states."

IS NOT FIRST OFFENSE.

A bill is now before Congress, No. 16,204, introduced by Congressman French of Idaho, which has the support of a number of food commissioners, to amend the national pure food law, which will prohibit the use of albumen in baking powder as an ingredient and from all indications it is in a fair way of passage, though hardly at the present session, while the Broussard bill has no support from any of the food officials, so far as the *Interstate Grocer* is able to ascertain.

This is not the first offense of a similar nature perpetrated by the Calumet Company, as several years ago it gave wide circulation to an article from a Chicago grocery paper which purported to be an accurate review of the report of the Illinois Food Commissioner, wherein practically every brand of baking powder of prominence was condemned as illegal, because they did not contain the required 10 per cent of gas.

The article did not mention that Calumet baking powder was equally censured nor that the baking powder declared illegal was all old stuff and had been on the dealers' shelves for years, one of the cans being seven years old. At the time Commissioner Jones was making a campaign against old baking powder and picked up a number of cans that did not have the required amount of gas. But the circular had nothing whatever to say that Calumet was equally as guilty as the others in this respect, that it was also listed among the illegal brands though the Calumet concern did not hesitate to take an underhanded advantage of other baking powders, by throwing out the inference that they did not comply with the law.—*Interstate Grocer*.

CALUMET CO. PLACES BLAME ON BROUSSARD FOR ALBUMEN FIASCO.

Nothing in the trade has attracted as much attention for months as the expose by the *Interstate Grocer* of the deceptive plans of the Calumet Baking Powder Company in send-

Saccharin vs. Sugar

LAST YEAR approximately 100,000 Americans died from Bright's and other diseases of the kidneys. Standing alone these figures are impressive. Considering them in connection with two important facts, they become startling.

These facts are:

- (1) That fully 60%, or 60,000 of these deaths could have been prevented or postponed for years if the presence of the disease had been discovered in its early stages.
- (2) That the death rate from these diseases is increasing at an abnormal rate—72% in 20 years and 23% in the last 10 years. (In the registration area.) —From *The Human Factor*, March, 1914.

It has been estimated that about 20 per cent of our people are either suffering from diabetes or have a tendency to be so afflicted. **Sugar is a known poison to such people** and every physician will tell you so.

Saccharin has no deleterious effects on either the sick or the well. Its discovery represents one of the greatest achievements in the world of science. Why, therefore, unnecessarily subject this great percentage of our people to the possible dangers incident to the use of sugar, when it can be avoided by using Saccharin when practicable.

*"I am forced to the conclusion that the proper interpretation of the decision of the Referee Board in the saccharin case is that saccharin is positively harmless in quantities that would, in practice, be consumed; and that saccharin does not deteriorate or reduce the food value of any article in which it is used as a sweetener. * * * * It should be stated that F. I. D. 135 was signed by the three Secretaries because it was believed to be approved by the Referee Board as a correct interpretation of the Board's decision. The three Secretaries intended to accept the decision of the Referee Board; and it was supposed that they were doing so in F. I. D. No. 135. But the assumption that F. I. D. No. 135 had been approved by the Referee Board, or by the chairman of that Board, as expressing its decision was, as it turned out, unwarranted and an error."*

From letter of former Secretary MacVeagh to the Secretary of Agriculture, February 27th, 1912.

We strongly recommend that when Saccharin is used to sweeten foods or beverages, the fact be so declared on the label, not because of the proven fact that Saccharin is without harmful or deleterious effects on the health, but, to avoid any possibility of a charge of substitution or deception being made.

Monsanto Chemical Works

Manufacturers of Saccharin

SAINT LOUIS

Branch: Platt and Pearl Streets, NEW YORK

ing out broadcast over the United States printed copies of the proposed Broussard bill in a government envelope, which would compel the use of albumen in all brands of baking powder.

This is not only evidenced by the numerous letters being received by the wholesale grocers and baking powder manufacturers, but it has assumed national importance so that Congress itself intends to find out how the Calumet Company was able to use the facilities of the Government in mailing out 150,000 copies of this bill which gave receivers thereof the impression that it was a law effective July 1, when it has no show of passage.

TRICK DOES HEAVY DAMAGE.

Tremendous damage has been done and many orders for baking powder have been cancelled as a consequence. One baking powder company advises the *Interstate Grocer* that as much as a car load was cancelled by a wholesale grocer after receiving this bill and that in numerous other instances orders for 100 or 200 cases from jobbers and of smaller drop shipment orders from retailers have been withdrawn. This concern followed the plan of sending marked copies of the *Interstate Grocer*, and when the truth was learned, succeeded in getting the orders reinstated, but not until put to a great deal of expense and trouble.

An example of the effect upon the average retailer who received a copy of this bill is the following letter from the B. & E. Mercantile Company, Carnarvan, Iowa.

The *Interstate Grocer* is in receipt of some correspondence between the Calumet Baking Powder Company and E. G. Linkhart, North Vernon, Ind. Their first letter refers to the demonstration made by the Calumet Company in North Vernon, and inquires as to how its baking powder is moving. Mr. Linkhart tore off the bottom of that letter and wrote the company to the effect that most of his customers had gone back to Royal and called their attention to the article which appeared in the *Interstate Grocer* of June 13.

The Calumet Company replied, under date of June 19, of which the following is an extract:

"We are in receipt of a copy of a new law which, as we understand it, forbids the sale of all baking powders which do not contain albumen, or white of egg, as it is commonly called. This, of course, would prohibit the sale of your baking powder, as it does not contain albumen. Now, as we have just received a drop shipment from you, must we throw it all away? We have read the law over again and again, and we can see no other meaning. Please write us and set us right in this matter. We have always pinned our faith to your brand and this is quite a blow to us. Thanking you in advance for this favor."

SAYS THIS PAPER IS PREJUDICED.

"In reference to the article in the *Interstate Grocer* of June 13, published at St. Louis, Mo., we want you to know that this publication is nothing but a trade paper and evidently is not being issued in the interest of its subscribers—the retail merchants. It looks as though they were very much prejudiced.

"It is ridiculous to think and it is insulting to the intelligence of any one to try to get them to believe that a Congressman such as Mr. Broussard is, would introduce a bill under his own frank and then turn around and make such statements in regard to it as the *Interstate Grocer* dared publish.

"We knew nothing of this bill until it was introduced and we had nothing whatever to do with Mr. Broussard franking it. He evidently thinks it a good bill and wants to bring it to the attention of the retail merchants."

In the face of the denials made by Congressman Broussard to the Washington correspondent of the *Interstate Grocer*, the statements made by the Calumet Company are somewhat startling. Nevertheless, a digest of these statements was wired to Washington with instructions to get a fuller interview with Congressman Broussard. His statements will be found in another column on this page and prove conclusively that the *Interstate Grocer* did accurately cover his connection with the bill and that he had in a measure been imposed upon, and was not interested in the bill despite the Calumet Company letter to the contrary.

CAUSED RETAILERS WORRY.

As has been previously stated in these columns, the *Interstate Grocer* is not interested in the baking powder controversy in any way excepting to post the trade on the facts in the case. The mailing of these printed bills naturally gave any retailer not thoroughly posted the impression that it was effective July 1, and it is just as natural for them to be worried over the situation because of having baking powder on their shelves that did not contain albumen.

Because of this situation the *Interstate Grocer* published

a true statement in order that retailers would be relieved of the worry and imposition to which they have been put by the questionable tactics of the Calumet Company. As to whether the paper did not act in the interest of its subscribers, the facts in the case are the best evidence.

The controversy assumed such importance that subsequently to the action of the *Interstate Grocer*, the Associated Press carried a story from Washington which has been published in many of the leading daily papers, but in a somewhat garbled form. This story describes the resolution to be introduced by Congressman Johnson, referred to in the last issue of the *Interstate Grocer*, and made it appear as though this was a fight between the "trusts" and the independent baking powder manufacturers. The situation, however, is that practically all of the baking powder companies in the country with few exceptions, are arrayed against the Calumet Company because of the manner in which it has sought to establish the importance of albumen in baking powder to the detriment of other brands when a number of food commissioners have ruled that albumen is useless and as demonstrated by the Calumet Company is in reality a deception upon the consuming public.

CALUMET MAKING DIRTY FIGHT.

The Calumet Company is running advertisements in the daily papers aimed directly at the Jacques Manufacturing Company and assailing its brand, "K. C.," as cheap powder sold in large quantities at cheap prices. The Jacques Company sells 25 ounces for 25 cents, whereas the Calumet Company sells a pound for 25 cents. The Jacques Company claims that the only difference between their baking powder and the Calumet is the fact that the latter adds albumen, which costs about 14 cents for each 100 pounds, or fourteen-one-hundredths of a cent per pound in addition to the cost of "K. C." baking powder.

The *Interstate Grocer* has had an unusual demand for copies of the paper containing the original article from every section of the country, showing the great interest of the trade in this question and a desire to know the truth. It will, therefore, be interesting to note the progress of this fight and the final outcome. To a disinterested onlooker, it would appear that the Calumet Company will come in for a great deal of censure at the hands of retail grocers because of being disturbed and imposed upon when there was no reason or justification.—*Interstate Grocer*.

CONGRESSMAN KILLS BAKING POWDER CO.'S GAME OF DECEPTION.

Washington, June 12.—Acting on information furnished him by the *Interstate Grocer*, Representative Robert F. Broussard of Louisiana today took steps to stop what is believed to be one of the most extensive and most audacious outrages ever perpetrated against the grocery trade.

Mr. Broussard immediately stopped the circulation of a bill introduced by himself on May 7 last, designed to make it unlawful to manufacture or sell baking powder "which does not contain egg albumen as an ingredient thereof."

At the same time the Congressman directed that an order, innocently given for the use of his franking privileges, to cover the expense of mailing copies of this bill to grocers and jobbers throughout the country, should be cancelled.

BILL WILL NOT BE CONSIDERED.

Before these things were done, however, it was learned today that at least one baking powder concern (The Calumet Baking Powder Company of Chicago) had succeeded in mailing 150,000 copies of the bill from Washington. These, as stated, went out under Mr. Broussard's frank to every section of the country. So printed is the bill that it naturally carries, to persons unused to legislative technicalities, the impression that the bill is already a law, to become effective "from and after July 1, 1914."

As a matter of fact the bill has no more chance of becoming a law than has all the printed matter, including the cartoon on this page. Mr. Broussard said to the *Interstate Grocer* correspondent today that he never expected that the bill would even be considered in committee, and that he had never intended to push it in any way or even say a word favorable to it.

How a thing like this could be done, and how, after the bill was once before Congress, it could be used to such an advantage as it has been used, though perhaps perfectly legitimately, is one of those questions which now and then boil up in Washington.

HOW TRICKERY WAS WORKED.

Those who are making use of the bill are sending it to grocers without a word of comment. Yet the grocer is given to understand, and by the bill itself, that its provision

Here's A Plain Question

WE want to ask you a plain question — first for our own information—second to make you ask yourself the question.

Here are the premises:—Some of the most learned men of the medical profession and in pharmacology say of Caffein as follows:

“Caffein Is Nature’s True Stimulant”

“A substance which produces energy by its own hydrolysis, and thereby stimulates without corresponding depression. But after the mild stimulation, it leaves the system in its normal condition; and, being a substance of this kind and character, it cannot be habit-forming, for without a corresponding depression, there is no demand for a repetition or an increasing amount.”

Don't you agree? Such being the case, can Coca-Cola be justly criticised for its Caffein content?

If you disagree, why? Your reply will be considered confidential.

NOTE.—June 13, 1914, the U. S. Circuit Court of Appeals (Sixth Circuit) gave final decision on the Chattanooga Case, completely vindicating Coca-Cola—deciding in our favor.



We Shall Appreciate a Reply.

The Coca-Cola Co.
Atlanta, Ga.

are a part of the law or soon will be, and they, therefore, begin to make ready for the new conditions by refusing to buy baking powder which does not contain albumen and by laying in a stock of the baking powder that does contain albumen.

That this is true developed today when it was learned that George W. McCabe, former solicitor for the Department of Agriculture, announced that he had been retained by the baking powder concerns that do not use albumen to investigate the situation here. He was in conference with Mr. Broussard late in the day.

Mr. Broussard said that he had introduced the bill at the request of a friend in whom he had great confidence. This friend admitted that he was acting for a third party, who was unnamed, but who presumably was himself acting for one of the baking powder concerns.

When the bill had been printed it was an easy matter to secure unlimited copies through the Government Printing Office. This "friend" then asked Mr. Broussard for the use of his "frank" with which to send out "a few copies." The request was granted, with the result that Mr. Broussard when informed today that the Government Printing Office had furnished more than 150,000 copies of the bill, was astounded at the information.—*Interstate Grocer*.

CONGRESS TO PROBE BAKING POWDER PLOT.

Washington, June 19.—Practically at the last minute of consideration in the Senate Interstate Commerce Committee, a new section was added to the interstate trade commission bill to give the commission power to prevent "corporations from using unfair methods of competition in commerce."

The bill, which is designed to be a substitute measure for the Covington bill that recently passed the House, will be taken up in the Senate for discussion next week. It is not likely to be amended in any essential particular, and it is believed the House will accept it as it passes the Senate.

President Wilson again has announced his determination that Congress must stay in session until the entire trust program has been written into law. In the face of this situation, however, the results of a campaign—called a "deliberate" campaign by the President—for an immediate adjournment are being felt by the lawmakers. Letters and telegrams from business men all over the country are daily reaching Washington, all asking that "business be given a rest."

It now looks as if Congress will still be in session on September 1 next.

I. G. REVELATIONS START INQUIRY.

A congressional scandal is threatened as a result of exposures by the *Interstate Grocer* in connection with activities in Washington of certain baking powder concerns. Representative Albert Johnson of Washington has announced that he has prepared resolutions for introduction in the House designed to lay bare all the facts before Congress.

One of these resolutions, Mr. Johnson said, would direct a continuation of the special lobby investigating committee's work so that the committee may make inquiry into the proposition of whether a baking powder concern has been using offices in the House office building for the purpose of sending out 150,000 copies of the Broussard bill, which provides that baking powder "on and after July 1, 1914," must contain egg albumen.

The second resolution would direct an inquiry to be made by the Department of Agriculture to determine whether the use of albumen in baking powder is injurious to health, and the third calls upon the Attorney General to investigate and inform Congress whether there exists a baking powder trust.

Mr. Johnson's endeavors to secure this legislation grows out of the fact that recently two conflicting bills were introduced in the House, one by Representative French of Idaho, to make it unlawful to manufacture or sell baking powder containing albumen, and the other by Representative Broussard of Louisiana to make it unlawful for baking powder not to contain albumen.

GROCERS WRITE BROUSSARD.

As stated last week Mr. Broussard, when informed as to the uses to which his bill was being put, immediately took steps to prevent its further distribution and withdrew permission which he had granted for the use of his franking privilege in the mailing of the bill to grocers throughout the country. During the last few days, however, Mr. Broussard has received many letters on the subject, indicating the interest, to say nothing of the misapprehension, the whole thing has created.

One of these letters came from A. T. Andrews of Crete, Neb., who declared the bill was "a useless expenditure of money the way it reads; I am interested to know what it

really means." Mr. Andrews, it seems, had trouble in reading Mr. Broussard's signature on the penalty envelope, the signature being the evidence of the congressional "frank." His letter said:

"I have a bill relative to baking powder that contains good news as far as I know, but it is ambiguous to say the least. Also I am unable to address you properly. I do not believe you are the only 'Mr. Broussard' on earth, but I have no way of knowing your initials. I have your autograph on the penalty envelope, but the devil couldn't read it.

"In H. R. 16349 the United States head printer has not printed your name in full. You are very likely a big man from some place, but your school teacher neglected your writing as well as your spelling. I notice you do not spell your own name right, so I am suspicious that your knowledge of baking powder is limited.

"Kindly advise me at once what percentage of egg albumen is necessary in baking powder to comply with the law after July 1, 1914, and greatly oblige, yours truly,

"A. T. ANDREWS."

BILL WILL NEVER BECOME LAW.

The letter is chiefly important because it indicates that Mr. Andrews, along with others, is laboring under the impression that the bill is now a law and that, in fact, after July 1 next it will be unlawful to manufacture or sell baking powder containing albumen.

It may be stated positively that the bill never will become a law. It was never intended by the member who introduced it that it should be enacted. The only reason for its existence at all appears to be that a baking powder concern using albumen considered it necessary to have the bill introduced to combat a bill previously introduced by Mr. French. The day after Mr. Broussard had fallen an easy victim, the baking powder concern used it in its exploiting scheme.

COVERED HAMS AND BACON NOT "IN PACKAGE FORM" UNDER THE FEDERAL NET WEIGHT LAW.

(Continued from Page 301.)

undue profit to the packer in selling hams wrapped in this manner. The percentage of hams and bacon so wrapped is not above 10 percent of the total number wrapped. This is the class of wrapped goods sold under the strongest guaranty as to keeping qualities, and the cost of the material and labor plus the reclamations under the guaranty more than offset the seeming gain attained by selling at gross weight.

What proportion of all the wrapped hams and bacon goes to the consumer in the piece?

The proportion varies with the class of trade and the section of the country. In the plantation trade of the South and the ranch trade of the West a much greater proportion of wrapped goods goes to the ultimate consumer in the piece. In the city where the ham and bacon are largely sold in markets and in butcher shops, where cutting facilities are found, practically all is sold by the slice and none in the piece. In grocery stores, which have no cutting facilities, the trade is by the piece. In localities remote from cities, particularly in the West and South, more hams and sides of bacon are sold to the consumer as a whole than in other sections. The number of wrapped hams and sides of bacon sold to the consumer in the piece is constantly decreasing, due, perhaps, partially to the high cost of meat, and partially to change in manner of living. From the best information obtainable by the packers, taking the country and production as a whole, it is believed that not over 5 percent, one in twenty, of the wrapped hams and wrapped sides of bacon go to the consumer in the piece. These figures may be slightly low, but it can be positively stated that not to exceed 10 percent, or one in ten, of the wrapped hams, and less than 10 percent of the wrapped sides of bacon are sold to the consumer in the piece.

You are advised that, in the opinion of the department, single hams and single sides of bacon when covered, as you have described, with paper, gelatin, or cloth, for the purpose stated by you, are not in "package form" within the meaning of the Net Weight Amendment, and, consequently, it is not required that the quantity of the meat be stated on such coverings.

Respectfully,

C. L. ALSBERG, Chief.

To Whom it May Concern:

(Promulgation by the Illinois State Food Standard Commission.)

"Ice Cream is a frozen substance made from cream, or milk and cream, and sugar, with or without the addition of such other wholesome substances as have customarily * been used in making Ice Cream, and contains not less than eight per cent (%) milk fat, and manufactured, stored, distributed and dispensed in a sanitary manner."

*The following other substances have customarily been used in making Ice Cream: Eggs, flours, starches, butter, gelatin, flavoring, harmless colors, nuts, fruits, pastries and condensed milks.

W. SCOTT MATTHEWS
DR. WALTER S. HAINES
THOMAS P. SULLIVAN.

June 23rd, 1914.



Libby's Hawaiian Pineapple

Tempting slices of luscious pineapple — grown, sliced and packed on Libby's plantations in Hawaii.

Libby's Sliced Hawaiian Pineapple

Libby, McNeill & Libby-Chicago.

Delightful in a Hundred Ways

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Chemists and Chemical Engineers
Operators of Analytical and Research Laboratories
Technical Advisers to Manufacturers
Special Attention to Food Analysis in All Its Branches
Armour Institute of Technology, Chicago
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DEPARTMENTS: Food, Commercial, Medical, Milling and Baking.
Expert Staff of Consultants. Court and Medico-Legal Work.

The finest preparation of its kind on the market today is **The Great Food Drink**

Malt Marrow

Be sure that you ask for and get McAVOY'S.
The only MALT MARROW that there is.



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Canned Salmon

ALL GRADES ALL SIZES

Largest Distributors
in the World

KELLEY-CLARKE CO.

SEATTLE, U. S. A.

NATURAL FRUIT FLAVORS

FOR USE OF MANUFACTURERS
C.X.C. LEMON, C.X.C. ORANGE, C.X.C. LIMES
Soluble, Concentrated, Terpeneless
FOOTE & JENKS, Sole Mnfrs., Jackson, Mich.

Victor Chemical Works

New York Chicago St. Louis

**Phosphates, Baking Powder
Materials, Epsom Salts**

GOVERNMENT OFFICIALS RECENTLY AP- POINTED.

Washington, D. C., June 30.—During the month of June the U. S. Department of Agriculture has commissioned the following state officials collaborating officers of the government:

Dr. Guy Y. Williams, acting chemist for the state of Oklahoma, collaborating chemist.

William A. McRae, state commissioner of Florida, commissioned state official.

Frank A. Jackson, commissioned state official for Rhode Island.

A. C. Summers, collaborating state chemist for the state of South Carolina.

Dr. Wilbur L. DuBois, formerly chief of the Buffalo laboratory of the Bureau of Chemistry, has been appointed chief chemist of the new chemical laboratories of the Hershey Chocolate Co.

Alfred E. Taylor, formerly chief of the San Juan laboratory of the Bureau of Chemistry, has been transferred to Washington, where he will take charge of the import work of the eastern inspection division.

GOVERNMENT CHEMISTS PLAY BALL.

A baseball league has been formed within the U. S. Department of Agriculture and is composed of seven teams, representing the several bureaus and independent offices, of which the following have purchased franchises: Bureau of Chemistry, Bureau of Plant Industry, Bureau of Animal Industry, Office of Public Roads, Solicitor's Office, Office of the Secretary and Office of Insecticide and Fungicide Inspection combined with the Bureau of Entomology and Biological Survey.

The new league has not only the approval, but the hearty endorsement and support of the department that it merits, in as much as by this means the employees of the different bureaus become associated in friendly rivalry, thus bringing the working parts of the department closer in touch. Each player must be a bona fide employee of the bureau that he represents, making it strictly an inter-bureau organization.

Mr. J. G. Shibley, executive officer of the Insecticide and Fungicide Board of the Bureau of Chemistry, has been chosen president of the league. He has long been an ardent admirer of the national pastime, and his interest in the league has aroused a great deal of enthusiasm throughout the department. W. O. Gordon of the Bureau of Animal Industry is the secretary-treasurer.

ILLINOIS HAS NEW ICE CREAM BULLETIN.

Especially timely is the new Bulletin No. 28, on ice cream, which has been prepared by the Illinois State Food Commission, and is now on the press and will be ready for distribution within a very short time.

The pamphlet opens with a page containing the official standard for ice cream as adopted by the Illinois State Food Standard Commission, and then proceeds to give directions as to how the product may be manufactured and handled in order to meet the prescribed requirements.

Information is given to guide the manufacturer in the selection of proper ingredients, how to handle same in the process of manufacture, and suggestions offered as to proper equipment and operation of the model factory. The whole subject is treated in a most comprehensive and authoritative way, touching upon every point from the milk as it comes from the dairy to the character and physical condition of the individual who dispenses the product over the counter to the consumer. Incorporated in the Bulletin is also the full text of the Illinois State Sanitary Food Law, the provisions of which are important to all manufacturers and dispensers of ice cream as well as other food products.

Ice cream is properly classed not only as a delicacy but as a food of considerable nutritive value, and the fact that it is so largely consumed by people of all classes and ages and conditions of health makes it imperative that the product be pure and "true to name" in every particular.

Manufacturers and distributors of ice cream should possess themselves with a copy of this important bulletin as soon as it is off the press. Write to Illinois State Food Commission, W. Scott Matthews, Commissioner, 1627 Manhattan Bldg., Chicago, and ask for Bulletin No. 28 on ice cream.

INDIANA.

By WALTER S. GREENOUGH.

(From a staff correspondent.)

INDIANAPOLIS, June 30.—In a bulletin issued by the Indiana State Board of Health the statement is made that Indiana's egg crop is worth \$50,000,000 a year and one-twelfth of the entire production of the country. The statement was made after an investigation of egg-conditions in Indiana that went into the big retail and wholesale houses, the farmers' homes, the cold storage houses and elsewhere.

"The hen is doing far more toward creating wealth for Indiana than any one-half dozen of her manufacturing industries," the bulletin said. But while the manufacturer watches every penny and cuts expenses to the last notch, at least 10 per cent of all eggs are broken or spoiled before they get to market. If the Indiana egg crop is marketed promptly will bring at least \$5,000,000 per year more to our farmers than it now does."

Recommendations from the state department to all users and handlers of eggs were included in the bulletin, with the statement that only by wide publicity of the proper methods of handling eggs can the 10 per cent of loss be saved to any extent.

The recommendations follow:

"TO THE FARMER.

"Produce only infertile eggs for market, as they do not spoil so quickly as fertile ones.

"Dispose of the roosters as soon as eggs needed for hatching are obtained. The eggs keep better and the hens will lay just as many of them.

"Provide plenty of clean nests with clean straw in them.

"Gather eggs twice daily in hot weather and store them in a cool, sweet, well-ventilated place, but do not store where damp.

"Do not wash eggs.

"Market eggs as often as possible and carry them gently.

"Do not sell eggs from stolen nests. Use them at home.

"Protect eggs from the sun when taking them to market. Eggs exposed to hot sunshine for one hour will spoil; this applies to infertile as well as fertile eggs.

"Candle your eggs and insist upon having them candled by the purchaser so that he may know that he is buying good eggs and pay accordingly. You will thus reap the advantage for the care you have given them. Send a postal card to the Secretary of Agriculture, Washington, D. C., and ask for a copy of Year Book Separate No. 552, which explains the operation of candling and grading of eggs.

"TO EGG BUYERS.

"Candle all eggs and buy only on 'loss off' basis.

"Return all bad eggs to the farmer. Encourage him to produce good, clean eggs by paying less for the other kind.

"Store eggs in a cool, sweet and dry place.

"Use only clean, dry fillers for packing.

"Forward eggs to commission men as often as possible.

"Do not deliver to railway until shortly before train time.

"Keep eggs out of the sun.

"TO PACKERS AND CARGO SHIPPERS.

"Do not buy 'case count.' Have a standard for quality and refuse all eggs not up to the standard.

"Do not deal in 'spots' and 'rots.'

"Arrange separate refrigerated rooms for storing eggs.

"Do not allow eggs to remain in a hot car any longer than is necessary.

"TO RETAILERS.

"Buy only properly graded eggs. Do not misrepresent them to purchaser. Buy in small quantities unless you have a separate refrigerator for storing them. Keep them away from all odorous substances, particularly kerosene oil, fruit, decaying vegetables, etc.

"TO THE HOUSEWIFE.

"Buy only candled and properly graded eggs.

"Keep eggs in a cool, sweet and well-ventilated place.

"Wash eggs before using them, as the shell may not be clean as it appears.

"If you receive bad eggs from your dealer, report the fact to this department."

RUMFORD

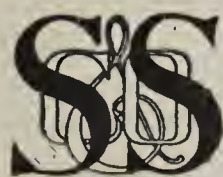
The Wholesome

Baking Powder

A scientific preparation being the result of extended research by the celebrated chemist Prof. E. N. Horsford, for many years Prof. of Chemistry in Harvard University.

Dietetically speaking, Rumford is without fault; as a leavening agent it is perfect; as a keeper it has no superior.

Its Purity is Unsurpassed.



BUY
a whole Majestic
Ham or Strip of
Majestic Bacon and have the best
breakfast of the year tomorrow.

Sulzberger's Majestic Hams and Bacon

are prepared from the choicest of young porkers, cured in the good old-fashioned way and smoked to perfection over slow-burning hickory wood fires.

Every Piece U. S. Government Inspected and Passed.

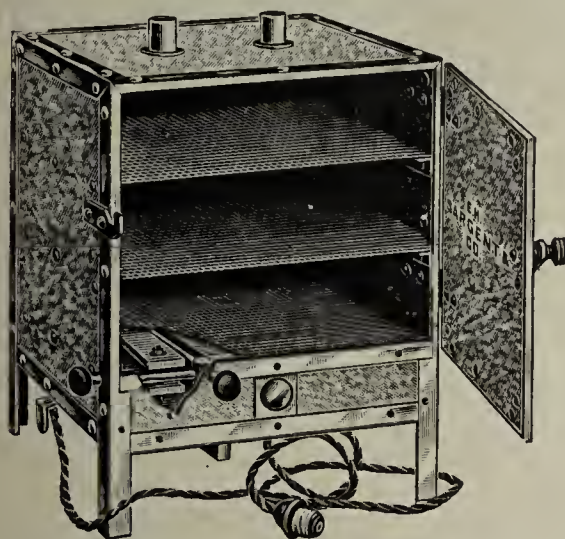
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Sulzberger & Sons Company
U. S. A.

Sargent's Electric Drying Oven

With Automatic Temperature Control

(Patented Jan. 6th, 1914.)



THE demand for a constant temperature drying oven at a moderate price has led us to put upon the market this desirable piece of apparatus. Electrically heated and automatically controlled, the oven may be set for any temperature between 70°C and 150°C, and is guaranteed to maintain it within 1°C.

*Adapted for and used in food laboratories
with excellent results.*

PRICE complete with six-foot cord, plug, thermometer and directions for operating **\$25.00 net**

Descriptive pamphlet on application.

Our complete catalogues furnished upon request.

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Manufacturers, Importers and Dealers in Laboratory Supplies
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COOK

BOOK

This is the Cook Book that makes the food
which makes the whole family happy.

Cottolene

—the shortening that insures digestible food. Makes
light foods lighter.

— TRY THIS PIE CRUST —

(Written especially for the Cottolene Cook Book by Mrs. Lincoln)

Mix 1 scant half-level teaspoon salt with 1½ cups pastry flour. Chop in, with a knife, a scant half-cup of chilled Cottolene. When well cut together, mix in very gradually 3 tablespoons milk, mixing evenly. Do not knead with the hands. Sprinkle some flour on molding board, flour rolling pin, roll dough into rectangular shape, roll up, cut in two, stand one roll on end, pat it flat and roll to a round a little larger than the pie plate, cover plate and fill with pie material. Roll other half of paste in same way, making it ½-inch larger than plate, make several incisions in top crust, lay it loosely over pie, wet edge of lower crust and press the two together, marking with a fork. Marking keeps crust from puffing and helps to keep in the juice.

While you think of it, drop a postal for HOME HELPS, this FREE Cook Book, written by five of America's greatest cooking experts. It also tells, clearly, how to use Cottolene successfully in the recipes you have always used.

THE N. K. FAIRBANK COMPANY
CHICAGO

Minnesota Correspondence

(From Our Staff Correspondent)

THE organization known as "The Housewives' League" has been active in St. Paul since its inception. The local league is a branch of the national body and the movement as a whole has been productive of much good, especially along sanitation lines. Mrs. D. W. McCourt is chairman here and under her able leadership the housewives have co-operated with the health officials, the dairy and food commissioner, the Bureau of Weights and Measures, as well as with organizations of grocers, butchers, and food manufacturers, etc.

One of their objects is to urge all members to pay cash for their provisions and in return for this they ask a trade discount of 2 per cent from the grocer and butcher. Also they urge a campaign of education to the country's housekeepers to plan their orders with the grocer early, so that he will have to make but one delivery a day, and not have him make a trip to deliver an article the profit on which does not equal the cost of delivery. They feel that if the grocer's operating expenses can be cut down and the general distribution of food products be made more efficient, they can justly ask for a reduction in prices, or the grocer will reciprocate voluntarily.

They believe that when commission merchants and storage dealers are holding products at prices that are not in keeping with the law of supply and demand, or in advance of the true market price, they can, by their organized strength, force the market to its correct level and handle other untoward conditions that unorganized consumers could not cope with.

The shop sanitation committee of the local league has made a great many inspections, and the women have proven very apt as inspectors, and yet they have been very fair and not expected things of the merchant that were not practical.

A number of the large bakeries, creameries and retail establishments were inspected during the winter and the league's certificate and sign of endorsement was given to several to hang over their doors.

On June 23rd the league held its regular meeting in the Wilder Charities building in St. Paul. A report from the inspection committee on their latest vigils was to the effect that out of ninety-seven meat markets, groceries, bakeries and restaurants inspected few more than half have been recommended by the shop sanitation committee for the official indorsement sign of the National Housewives' League. The meeting was addressed by the Hon. Chas. C. Neale, head of the State Bureau of Weights and Measures, on the subject of the Minnesota berry-box law. "Our merchants are doing what they can to enforce the berry-box law, which prohibits refilling of boxes, and the public should help them," said Mr. Neale. "To give back or sell a berry box is just as much a law violation as refilling the boxes. Millions of boxes have been picked up from alleys and garbage piles and refilled, but the present law prohibits this and insures the housewife cleaner berries.

"Berries cannot be sold by the box. They must be sold by the quart, and it is a misdemeanor for a dealer to have 'snide' or 'Washington quart' boxes in his store.

"The berry boxes with the bottom near the top in St. Paul stores are sent here from other states. Many shippers in our own state do not know the law, and it is only by education that we can solve the liquid measure problem. Berries can only be sold in this state by dry measure and we lose 12½ per cent when we buy them by liquid measure.

"Housewives have as much right to demand full weight and measures from their grocers as the grocers have to demand that the housewife pay her bills, but she should not register complaints until she is sure she has been defrauded. We should not say we are being short-weighted unless we have an accurate, reliable scale in our kitchens. Every woman should have such a scale."

Mrs. D. W. McCourt, chairman of the league, said that in her opinion the berry boxes are changed after shipment to the city. One dealer told her that he always made five or six quarts extra from every crate shipped in.

The league will require all its members to demand the full dry measure quart measure boxes of berries and to refuse to buy any berries by the "box."

The National Live Stock Exchange, composed of representatives from the principal stock markets of the United States, held a three-day convention in St. Paul, opening June 25th. The Federal act providing for ante-mortem inspection of market stock was the chief topic of discussion. Sec. E. F. Erwin of St. Joseph, Mo., asserting there is lack of uniformity in the measure.

T. C. McCrosky, of Kansas City, chairman of the committee appointed a year ago to investigate the systems of inspection at various market centers, said that the committee found the ante-mortem inspection act of 1906 definite and rigid, but that it does not meet the developments and necessities of 1914.

A committee composed of one member from each market center was appointed to work on needed changes in the law and to make recommendations.

F. D. Ketchum, inspector in charge of the Bureau of Animal Industry in St. Paul, explained the system of inspection, and declared it was "not for the protection of the buyer or seller, but for the benefit of the consumer."

In the concluding session amendments to the law of 1906 were asked, particularly relating to hog heat. They demanded that the Federal Bureau of Animal Industry should provide for the inspection of all hogs at the scales and those tagged as "suspects" be retained under governmental control until slaughtered.

The text of another resolution passed was as follows:

"Be it resolved, as representatives of the owners and producers, we respectfully request the Bureau of Animal Industry to discontinue the temperature test on hogs, for the reason that high temperature frequently is caused by excited conditions incident to handling and loading and does not show the carcass to be unfit for human food."

Minnesota's Food Commissioner, Joel D. Winkjer, came out flat-footed in favor of package foods and canned products in his address before the National Wholesale Grocers in convention in Minneapolis. He spoke of quality remaining essential, and of sanitation fast becoming the dominant factor in food production. Adulteration of foods is fast disappearing and fully 60 per cent of the illegal cases are because of misbranding due to careless or faulty labeling.

"The label of the honest wholesaler represents both quality and value. The brand or trade-mark is an important factor in that it has to represent purity and quality in the highest sense of the words; it also represents honesty, integrity, years of industry and scientific application as well as sanitary conditions in the production of food. No reputable wholesale house would have it otherwise. They stake their reputation of their respective houses upon the merits of the products that bear their brand and name. It therefore logically follows that distinctive brands coupled with the reputation of the house, are the very best safeguards the public can have as to quality and purity."

Mr. Winkjer, Mr. John McCabe and Dr. Julius Hortvet, chemist, will leave in a few days to attend the 18th annual convention of the Association of American Dairy, Food and Drug Officials at Portland, Me. Mr. Winkjer will present a paper on "The Value and Methods of Conducting So-called Pure Food Shows," and also take part in the round table talk on "Ice Cream Standards," and methods of conducting the commissioner's office work. Dr. Hortvet will read a paper before the chemists' division covering some recent investigational work in his laboratory.

Evidence to convict dealers who do not comply with the state sanitary laws will be collected by the Iowa state dairy and food commission by the use of a camera as soon as the state executive council grants W. B. Barney's request for \$75 to buy the outfit. The commissioner has been experimenting with plans to enforce the food measures and he believes that pictures of the actual scenes will go further in court in prosecutions than the testimony of the inspectors.



OHIO STATE FAIR MODEL GROCERY STORE

Ohio's Fighter for Sanitary Conditions, S. E. Strode, Ohio State Food Commissioner, selects for Model Grocery the Sherer-Gillett Sanitary Grocery Store Fixtures.

Mr. Food Commissioner:—Lighten your task of educating the millions of consumers who want their food protected from contamination and dirt. Let us co-operate with you. Ask us for descriptive literature.

State of Ohio
Office of Dairy and Food Commissioner
Columbus

SYLVANUS E. STRODE
COMMISSIONER
BENJ. F. GAYMAN
CHIEF INSPECTOR

Sept. 13-1913.

Mr. W. C. Sherer,
Sherer-Gillett Co.,
Chicago, Ill.

Dear Sir :-

I take this means of thanking you for the loan of two of your sanitary counters for our model grocery recently put on at the Ohio State Fair held here Sept. 1 to 5th. Our object was to teach in a forcible way the lessons of sanitation by contrasting insanitary conditions in a "bum" grocery alongside of this sanitary one. I find it a very effective method and thousands of Ohio citizens are becoming more discriminative in their purchases of food supplies and are insisting on greater cleanliness, which is insured by use of such sanitary counters as yours which allows inspection of grade and quality of supplies without exposure to contamination of dirt, flies and bacteria.

It would greatly lessen our labors in the direction of better and cleaner food if every grocery in Ohio could be equipped with sanitary counters similar to those which your company places on the market.

Very respectfully yours,

S. E. Strode
Commissioner.

SHERER-GILLETT CO., 1707-1709 S. Clark St., CHICAGO, ILL.

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Three-Day
Treatment
at Home or
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Removes cause

and overcomes the effects of the use of

DRINK or DRUGS

Synthetic, Tonic, Internal, Non-hazardous Method of Treatment — Positive Results without Injections, Distress or the Slightest Bad After Effects.

NEAL INSTITUTES IN 60 PRINCIPAL CITIES

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is the largest institution of its kind in the world. Located in the restful quiet of the beautiful Drexel boulevard residential district, an ideal place to spend a few days readjusting oneself to return to social and business duties in perfectly NORMAL mental and physical condition with a loathing instead of a craving for liquor or drug.

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CHICAGO



"Carnation Milk
imparts a rich flavor
when used in cooking."

Carnation Milk is a wonderful cooking help. Use it wherever the recipe calls for milk or cream — in pastries, puddings, soups and gravies.

CARNATION MILK

Clean—Sweet—Pure From Contented Cows

Carnation Milk is safe milk — hermetically sealed against contamination. Get acquainted with the rich, creamy flavor of Carnation Milk and it will have a permanent place in your pantry.

Ask your grocer—the Carnation Milkman—for "The Story of Carnation Quality"—with choice recipes, or write us for it.

Pacific Coast Condensed Milk Company

General Offices: Seattle, U. S. A.

New York Correspondence

(From Our Staff Correspondent.)

ALBANY, N. Y., June 30.—The New York State Pure Food Law is brief, occupying less than two pages of coarsely printed matter. It was enacted prior to the National Pure Food Law, which is similar to it, but rather less exacting. In addition, however, to this law there is one relating to vinegar, which is also short, a short section relating to "bob veal" and a law in respect to dairy products and oleomargarine which is somewhat extended. The enforcement of these laws is in the hands of the State Commissioner of Agriculture, Calvin J. Huson, being the recently reappointed commissioner. The details of the enforcement of the law is placed by the commissioner in the hands of Mr. Burke, who has been connected with it for some years. To be more efficient, the counsel for the department, George L. Flanders, has the oversight of legal proceedings and the preparation of cases. Mr. Flanders has been engaged in the work for the State for thirty years, commencing with the date when the first law relating to any food products went into effect, which was June 1st, 1884. It was then known as the Dairy Department, and the chief official was called the Dairy Commissioner. Mr. Flanders has had most to do with framing the succeeding laws relating to pure foods.

Since the enforcement of the laws is under the direction and personal oversight of the commissioner, he becomes responsible for it and I was glad to have him tell me in detail of the work as at present proceeding. There is nothing startling in progress, but there is the usual routine of inspection and education, for education is regarded as the most essential factor. Perhaps the most trouble may be experienced in relation to extracts and flavoring preparations. The law allows the use of mixtures if none of them are poisonous or deleterious to health, but requires that the package be properly branded. It is not necessary to state the trade formulas nor the percentages of any ingredients, but the substances contained must be noted where there is a mixture. Frequently manufacturers have failed to understand the law, but have been ready to correct errors when these were pointed out. It has come to the point where the manufacturer goes to the department or asks to have an inspector sent to him when he is to put a new preparation on the market, and thus find out in advance whether he has fulfilled the terms of the law. This is the sort of work that the department wishes to put to the front. It is right and necessary to collect fines, and this the department is doing to the extent of over \$50,000 a year, but co-operation between the office and the dealers and manufacturers is most to be desired and such work is made as prominent as possible.

Of the cases reported 862 were under the law relating to dairy products, 276 related to "bob" veals, 76 to vinegar, 17 to honey and maple syrup and sugar, while 138 related to the regular food law. These are all foods and constitute 1,369 of the 1,527 cases reported. The way in which violations of the law are handled is to turn the evidence and the prepared case over to the attorney-general. First, notice is sent to the concern responsible for the violation, and gives them ten days in which to settle, or to state if they think the case is made up under some mistake. If more time is asked for with fair reason it is always given if reasonable length is asked for. If the concern wishes to settle and sends in the draft with which to pay the fine, the case is still handed over to the attorney's department with the recommendation that it be settled. As already stated, the extracts seem to be in need of the most careful watching just now. There is not much trouble with maple syrup or sugar, although an occasional buyer gets together a lot of sugar and apparently melts it up and some way cane sugar gets in. Then vinegar causes a good deal of trouble. This is coming under the law better than formerly, but there are quite a number of cases now. After milk, which required the prosecution of 648 cases, "bob" veal makes a lot of trouble. It is handled by local shippers in the spring time especially, and the fellows who are in the business are expert in dodging the law. The 276 cases made out of it last year are a good deal more than there were of the oleo cases, there being 164 of these.

It is one thing to institute proceedings and quite another to take a case to the court of appeals and thereby establish a new precedent in the enforcement of laws. Such a prece-

dent has recently been established in New York in relation to oleomargarine. It has been the contention of those who have had the enforcement of the law in charge, that it should be interpreted a violation whenever the oleo is colored by any process so that it looks like butter. The case against John J. Guiton has been decided by the Court of Appeals somewhat adverse to this contention. It seems that the defendant proved that his admixture was not purposely made in such a manner that the product had the color of some butter. It may have been a shade of yellow, but it was not made so for the purpose of defrauding. It is on this ground that the court decided against the state.

Another decision relates to the sale or giving away of coloring matter with the oleo for the purpose of increasing sale of oleomargarine. In this case the court held with the people. The selling or giving away color is held to be a violation of the law and the law that prohibits so doing in connection with the sale of oleo is declared constitutional. This was a case of the people against Peter H. Van Kampen. The court says: "had color been added to the oleomargarine in Illinois, shipped to this state and sold in the original package, such sale would clearly be a violation of the statute of the state." It then quotes from Mr. Justice Harlan in the Plumley case: "If there is any subject over which it would seem that the state ought to have plenary control and the power to legislate in respect to which it ought not to be supposed was intended to be surrendered to the general government it is the protection of the people against fraud and deception in the sale of food products."

In handling the local dealers, if it is found that the dealer has something to sell that is not properly branded, and was purchased within the State, it is the custom to go back to the manufacturer or the jobber or wholesaler for redress. The merchant is likely to be innocent in the purchase, but whether he is or not if the original source is attacked much more good is done than if only a single dealer is made to pay a fine. In cases where the local men buy outside the State and there is no chance to get at the manufacturer, the best way to meet the difficulty is to make many inspections in the locality where considerable has been sold, make up the cases and soon the outside party who is "working" a section with goods of improper composition or marking finds his market gone. Dealers will not buy the next time where they get something that will cost in the end more than to handle genuine stuff. It hits back on the origin in that way after time, and sometimes not very long, either.

Education versus prosecution is the motto with emphasis on the former. To carry out this program it is found advantageous to carry exhibits to meetings where the public, as well as dealers and manufacturers can be informed of the laws and their operation, also of the rulings and the methods of the department. Men are sent with the exhibits to give explanation in detail. The retail grocers' association had the exhibit several times, and such gatherings as the State Fair and other places where there is interest are supplied with material and men to carry on the work of education. This is the primal idea of the commissioner in the enforcement of the law. As a result of the present activities there is very little food put upon the market that contains any deleterious matter. The chief trouble, where it exists, is in misbranding, and this is frequently the result of misunderstanding the law and is therefore easily remedied. Attention is now directed to articles that are being sold in bulk or without package form. Not that the package is being neglected, but the bulk foods are found to be in need of careful oversight.

Regarding such matter as the use of benzoate of soda there has been but little trouble. Mr. Flanders and others have kept careful track of scientific developments in this regard, and the small quantity of benzoate that is commonly used as a preservative is declared to be less objectionable than some other preservatives. Small amounts are not considered detrimental to health, and in larger amounts it has less harmful effect than a large amount of vinegar or acetic acid. This is the decision of experts and is considered good authority by the department. Benzoate will arrest decay of will vinegar and some other substances, but it will not counter up decay as vinegar can be made to do sometimes.



You Start to Eat Them One by One

Puffed Wheat and Puffed Rice are so dainty—so crisp, airy and fragile—that you treat them at first like confections. One starts to eat them grain by grain.

Yet these are but whole grains—nothing is added. The almond taste—like toasted nuts—comes from terrific heat. And steam explosion makes each grain like a bubble.

The Only Perfect Cooking

Prof. Anderson's process is the only way known to fit every food granule for easy digestion. In Puffed Grains, each separate food granule is literally blasted to pieces.

Other forms of these grains are delicious. But this way alone gives perfect cooking—makes them scientific foods. There lies the main reason for Puffed Grains.

Puffed Wheat, 10c
Puffed Rice, 15c

Except in Extreme West

**CORN
PUFFS**
15¢

The different Puffed Grains with all the ways of serving offer you endless variety. Serve them with cream and sugar. Mix them with berries. Float them like crackers in bowls of milk.

Use like nut meats in candy making or as garnish for ice cream. Serve one in the morning, another at night—for the summer dairy supper.

No other cereal food ever created affords such a wealth of enjoyment.

The Quaker Oats Company

Sole Makers

(628)



KINGSFORD'S CORN STARCH

THAT old standby, Kingsford's Corn Starch, is very new-fashioned indeed since housewives are looking for purity in food products, nutritive value and moderate cost.

Owing to its extreme delicacy and purity, Kingsford's takes the full flavor of any kind of seasoning. With it can be made dozens of dainty desserts and appetizing dishes that give variety to the home table.

You can have no idea of the possibilities of Kingsford's if you have been using ordinary Corn Starches and inferior substitutes, which are at the same price as Kingsford's.

See that you are given the original and genuine Kingsford's Corn Starch of Oswego; prepared by the careful process that has made Kingsford's the finest Corn Starch for over sixty years.

Send your name today for Cook Book 00, that tells all about making dainty desserts—and gives 168 recipes for all kinds of dishes.

National Starch Company
NEW YORK

Ohio Correspondence

(From our Staff Correspondent.)

COLUMBUS, O., June 30.—If Ohio egg producers are not soon commanding a fancy price in the markets of the country for high quality of product, it will not be the fault of the State Dairy and Food Department. At the present time the force of food inspectors, in teams of two each, are carrying a campaign of education into every section of the State. Daily demonstrations are given at grocery stores and produce warehouses on the candling of eggs. The disclosure of inferior qualities is proving a revelation to many dealers. This missionary work is preliminary to a very rigid enforcement of law against the sale of eggs that are below standard.

It is interesting to note in this connection that "Rooster Day," June 6, was well worth while. With the widespread cooperation of poultry raisers and dealers, stimulated by convincing literature sent out by the department, thousands of he-fowls which had fulfilled the destiny of their being during the hatching period, were sacrificed on the altar of good health. The vast quantity of eggs thus saved from fertilization cannot be computed. As a result of the movement inquiries have come to the department from a large city of a neighboring state seeking supplies of sterile eggs.

Further aggressiveness in education as applied to food products generally is to be carried out in the form of county fair exhibits. The Agricultural Commission of Ohio, of which the dairy and food inspection service is a division, will make displays at some seventy fairs throughout the State from August to September. It is impossible to assign all divisions to each fair, and the work is therefore distributed. The most important for the dairy and food branch will be the State Fair at Columbus, for the week of September 1. Its other assignments are: Jefferson County Fair, Ashtabula, week of August 18; Trumbull County Fair, Kinsman, week of August 25; Montgomery County Fair, Dayton, week of September 8; Paulding County Fair, Paulding, week of September 15; Sandusky County Fair, Fremont, week of September 22; Allen County Fair, Lima, week of September 29; Butler County Fair, Hamilton, week of October 6. A tent has been ordered for this purpose to use where there is not proper space in exhibition halls, and special packing cases will be made in which to transport equipment and displays. A force of inspectors will be on hand to give out literature and answer questions. The public will be instructed in the matter of pure food and sanitation and in protection against dishonest weights and measures.

The canning season, which is now on, calls for special vigilance. A new ruling has been put into force by the division which compels canneries to wash cans before they are filled with fruits or vegetables. Heretofore the cans have been used just as they came from the factory. Danger of possible contamination, to say nothing of ordinary regard for cleanliness, prompted a reform in this matter. There has been some opposition from canners over being put to the extra labor involved, but when they were informed that in addition to prosecution for violation of the ruling, their rating on quality as published in the annual report would also be affected, they saw the matter in a different light. The ruling is being generally observed, as are also other features of the sanitary code that was established a year ago. The code is posted in every cannery in the form of a very striking placard. In the report for 1913 there were 151 canneries listed and graded. The industry is grown to one of large importance in Ohio, and calls for a special canning inspector.

A new usefulness for the division is announced by Commissioner Strode, to be inaugurated within the next few months. This will be a bureau of marketing. All inspectors of the Agricultural Commission in their travels over the State will be expected to report on supply of such products as eggs, poultry, fruit, tomatoes and other perishable foodstuffs. A weekly bulletin will be published, giving names and addresses of producers, with quantities of products available and also the same information on purchasers.

The bureau of dairies of the dairy and food division is out with Bulletin No. 3, the same being a directory of Ohio creamery establishments, with location and classification. It is shown that the state has 577 creameries, including cheese

factories. Swiss cheese, which a few years ago was known only as an imported luxury from Europe, is now made in sixty-three Ohio factories. This bulletin shows the first complete inspection of creameries made in the State.

Another useful document, now in press, is the second edition of specifications and tolerations by the weights and measures bureau, which gives state and national laws governing this important subject. It is the first work of the kind published in Ohio for a number of years, and will greatly facilitate the popular understanding on the legal use of weights and measures.

Questions and answers relating to the administration of the drug laws of Ohio is made the subject of a fifteen-page pamphlet by W. R. Hower, chief inspector of the drug bureau. This bears date of June, 1914. The document is in such practical form as to remove from violators of the law in drug selling or adulteration all excuse as to confusion in the matter of requirements. The tightening of loopholes of escape through new laws within the past year or two is driving former offenders from their nefarious practices.

The bottlers' code, reviewed last month, has been approved by the commission, with the addition of a new clause which reads as follows: "It shall be unlawful for any person, firm or corporation to fill, refill or possess with intent to sell any mineral water, soda water, or other drink, in fluid in a container known as the 'Hutchinson Plunger Bottle,' or any bottle of similar type. The re-use of crown cups is also prohibited.

On July 7 Commissioner S. E. Strode and Chief of Food Division B. S. Bartlow, accompanied by B. F. Gayman, secretary of the Agricultural Commission, will start leisurely for Portland, Me., to attend the eighteenth annual convention of the American Association of Dairy, Food and Drug Inspectors, which convenes in that city on the 13th prox. It is the purpose of the party to couple business and pleasure by making the trip cover a vacation. Commissioner Strode, second vice-president of the association, will respond to the address of welcome made on the first day of the convention. He will also on the programme for a paper, the afternoon of June 1, on "The Value of Specific Laws Dealing with Special Conditions."

An address was made at Ohio Northern University, Adena, on June 25 by Chief Bartlow on the workings of the dairy and food laws of the State. One of the encouraging features of the work is the growing interest being taken in it by institutions of learning. Of late there has been a number of such calls for speakers familiar with the subject of pure food products.

Chief Inspector Hower, of the drug bureau, and members of his force will be present at the convention of the Pharmaceutical Society of Ohio, which convenes at Put-in-Bay on July 7. They will explain to the body what the bureau is seeking to do and what the law requires in the matter of selling dangerous narcotics.

Prosecutions during June have been carried on steadily, but no cases of unusual interest have come up. It is expected that during the next two months this part of the work will be handicapped some by adjournment of courts and vacations of prosecutors. No laxity will be allowed by the division in gathering evidence and making inspections, with a view to being in good shape for the fall and winter campaign with the courts. Special attention is being given to narcotic law violations. The moral effects of convictions during the past six months or more, with their jail and penitentiary sentences, are being felt everywhere throughout the State.

The twenty-third annual report of the dairy and food division for the fiscal year ending Nov. 15, 1913, is just from the press. Its 128 pages cover in a statistical and technical way the work of the division for the period named. An attractive feature is some half-dozen illustrations showing filthy dairy conditions, taken from life, and also reproductions of the dairy exhibit and the egg exhibit made at the Ohio State Fair.

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Tennessee Correspondence

(From our Staff Correspondent.)

NASHVILLE, TENN., June 30.—Dr. Lucius P. Brown, State Food and Drug Commissioner of Tennessee, has recently inaugurated a plan whereby he furnishes to the newspapers of the State what he terms "Weekly Chats With Consumers." He began this on June 6 and every week these "Chats" are published not only in the metropolitan dailies in the large cities but also in all of the county weeklies and dailies.

These articles are crisp, interesting and straight from the shoulder. They are proving a source of great instruction to the people who are thrown directly in touch with the department and the vital work it is doing in the State.

The pure food department in Tennessee was created six years ago and Dr. Brown has been in charge since its inception. Six years ago work along this line was at a standstill in Tennessee. Today there is no State in the South that has progressed so rapidly as the Volunteer State.

In his first installment of "Weekly Chats" Dr. Brown says: "This is the initial number of a weekly contribution to the press of the State, by the Pure Food and Drugs Department of Tennessee. We expect to publish under the head 'Weekly Chats With Consumers,' as given above, comments on foods, on drugs, on short weights, and on every other subject this department handles. These should be of interest to every man and woman in the State. Incidentally, there will be a little 'on the side' for the children. We do not expect everything to be original but shall take what is most interesting from any source we can find, sometimes with and sometimes without acknowledgment of the source. We trust this statement will serve as apology to another, who may have said the same thing. Nor do we intend to confine ourselves to the scientific aspect of such subjects. We shall try to make these articles of general interest, instructive, and, above all, readable.

"The appropriation from the Legislature to this department is now at a figure at which the department can do considerable work, and make its influence more than ever felt. In this work we want to ask the co-operation of every citizen of the State who values his health and comfort and that of his family. When anything is noticed which it is our duty to correct, write us. We can't be everywhere at once, though we do our best to that end. So we sometimes need our friends to tell us of troubles."

In his latest "Weekly Chat" Dr. Brown attacks "patent medicine cures." He warns the people against them and says that laws of the State against such drugs will be prosecuted to the letter.

The state department is now notifying every maker of a nostrum advertised as a cure that he must either change the name of his goods or stop selling his produce in the State.

"I am glad to say," says Dr. Brown, "that most of these are complying with the ruling and changing the name of their goods. Those who do not will of course be prosecuted. Our people believe in giving every man a chance to correct illegal ways. But they also have made up their minds to have Tennessee a law-abiding State."

INSPECTING SUMMER RESORTS.

About a week ago Dr. Brown sent out two inspectors to make a ten-days' tour of the summer resorts of the State. The trip is being made in an automobile. It has formerly been the custom of the officials to make the inspection by trains, but they find that they can cover the ground in about half the time by using an auto. As soon as one summer resort has been inspected and recommendations made as to the sanitation and protection that is afforded at the hotel, they are able to go immediately to the next town without waiting for the trains.

The work of the inspectors on these trips is a source of interest to those who make it a custom of going to the summer resorts. They begin their work by requiring the proprietor to make a thorough clean-up around the premises. The general service is given an overhauling and the food is made to come up to the standard. If it is thought necessary the water that usually forms an adjunct to all of the summer resorts is analyzed and the announcement made public if it does not prove to be good.

WARNS RAILROAD COMPANIES.

Recently Dr. Brown sent out letters to the heads of the various railroads operating in the State, warning them against allowing their employes to sleep in the dining cars. The commission will wage a relentless campaign until such a practice is entirely broken up.

QUARTERLY REPORT.

In compliance with the acts of the Legislature of 1913, the Food and Drugs Department has issued its first quarterly report. An appropriation of \$1,000 was made by the last legislature for this purpose.

Under the sanitary food law 8250 food inspections were made and 453 towns in the State were visited and revisited. As a result of these inspections, there were forty-two prosecutions and forty-one of these were convicted. It is noted in the report that following the convictions a decided change for the better took place in the type of foods put upon the market. The report declares that in the course of the inspections very nearly every county in the State had been entered.

The painstaking methods of the department are shown in the report that 181 samples of food were taken to the laboratories and there given a final and conclusive test.

One of the most interesting tables in the report, especially at this time of the year, is the result of the analyses made of several of the more popular soft drinks at present on the market. The department has the privilege of prosecuting the manufacturers of these drinks or to publish the results of their findings, or both. It is shown in the report that of fourteen soft drinks investigated four of them could not stand the test. Of the ten that did "get by" some of them did so only by the narrowest of margins.

In the category of the catsup examined an alarming predominance of illegally adulterated goods were found. Of nineteen examined seventeen were pronounced illegal and only two passed. The sausages, however, held up nobler under the test, twelve samples coming out to the good and only two to the "demnition how-wows." The ciders made an even break, four being good and four bad.

Two of the additions to the department that are treated as features in the report are the four hotel men who have been detailed to serve on this sort of work alone, and the educational exhibits that have been undertaken. The best work of the educational exhibits was at the Knoxville Exposition. This made such an impression that Atlanta, Ga., made a special request that it be shown there, and it was granted.

HOW TO BE HEALTHY AND LIVE RIGHT.

In his last "Weekly Chat" Dr. Brown says:

"Some people may wonder why we give so much space in our 'chats' to the sanitary food law. If they do we want to reply that it is because it is one of the most effective laws on the statute books for the abatement of unpleasant and unhealthful living conditions. It has likewise been found one of the most salutary educational agencies which has ever been inaugurated in the State for teaching the people how to live right, and the dangers from wrong living.

"Section 2 thereof, in the latter part of it, provides that an establishment shall be considered as being conducted in an unclean, unhealthful and unsanitary condition if the refuse, dirt and waste products subject to decomposition and fermentation incident to the handling of the food, are not removed daily, and if all receptacles for the food and all implements with which it is handled are not thoroughly cleaned daily, and if the clothing of operatives, employes, clerks, or other persons therein employed is unclean. This may seem a small matter at first sight. It is naturally to be supposed that any establishment would remove the dirt that it makes itself, but when it is stated that the department has often found garbage cans in the kitchens of restaurants in which fly maggots were working, because they had not been cleaned for several days, it will be understood that the matter is of importance. And some of the places that have been examined have been so filthy that, as somebody recently said, 'the odor was a combination of two skunks fighting at midnight in a badly-kept graveyard between a rubber vulcanizing plant, a glue factory and a bone ash field.' In fact, a large percentage of the places which this department has prosecuted



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within the last few years have been prosecuted on this very point. The average cleanly housewife has no conception of the conditions that formerly prevailed in some cheap restaurants in the larger cities of the State. A garbage can absolutely filthy and swarming with vermin; refuse from meats and grease covering the floor, smoky walls, filthy stoves, dirty ice boxes, in fact a list too long to enumerate here."

**GENERAL FEDERATION OF WOMEN'S CLUBS
ENDORSE NECESSITY OF UNIFORMITY
IN FOOD LEGISLATION.**

(Continued from Page 300.)

But do not despair of clean food. Indeed, I believe we are entering an era of cleanliness and that the time is almost at hand when the food manufacturer and distributor will appreciate the fact that the success of his business depends upon his ability to insure his customers not only unadulterated food but, more than that, products made from sound raw material, in sanitary workshops, by healthy workmen, and when it will be as vicious a crime to poison a customer by typhoid laden milk or water as to kill him with arsenic or an axe. The housewives who purchase 95% of the food supply can in a single year revolutionize the methods of handling food stuffs by using the weapons already in their hands. Determined effort on the part of the members of a single club will close the filthy grocery store, drive the cellar bakery up into the light and air and compel a recalcitrant City Council to provide the funds for meat, milk and market inspection. And when the necessity for healthy workmen is appreciated as fully by consumers as it is by the physicians who administer to the ills of these workmen, we shall no longer hire bakers and butchers and delivery boys solely because they are able to do a day's work but because they can show a certificate of freedom from disease and an intelligent understanding of the principles that make for cleanliness and decency. To my mind this is the most important problem of the many which concern the food supply; healthy workmen, instead of as at present, uninspected, unregulated and far too often physically unfit workers.

In the interest of good business and your personal welfare, do you know the employees of your grocer, baker, butcher and milkman are free from disease?

The slogan of the women's clubs may well be—*We stand for cleanliness*, and when that stand is made clean food will be no longer an issue but a fact.

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Cherries . . .	{ Sour 2 $\frac{1}{2}$ Sweet 1 $\frac{1}{2}$	$\frac{3}{8}$	1 $\frac{1}{2}$ pts.	15
Currants . . .		$\frac{1}{4}$	1 pt.	15
Peaches . . .	1 $\frac{1}{4}$	$\frac{3}{8}$	1 pt.	10 to 15
Pears	1 $\frac{1}{4}$	$\frac{3}{8}$	1 $\frac{1}{2}$ pts.	15
Plums	2	$\frac{3}{4}$	1 pt.	20

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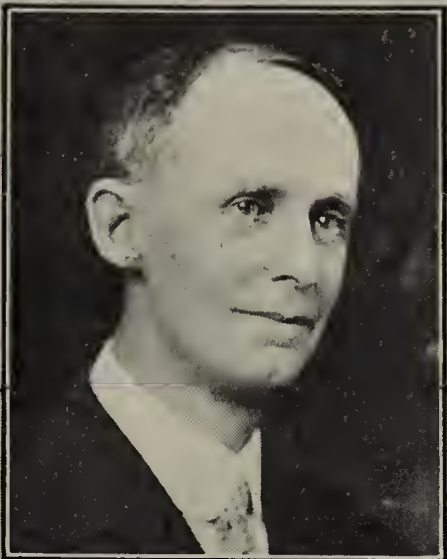
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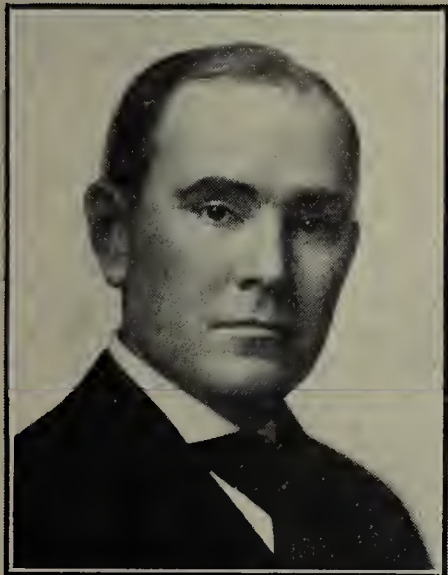
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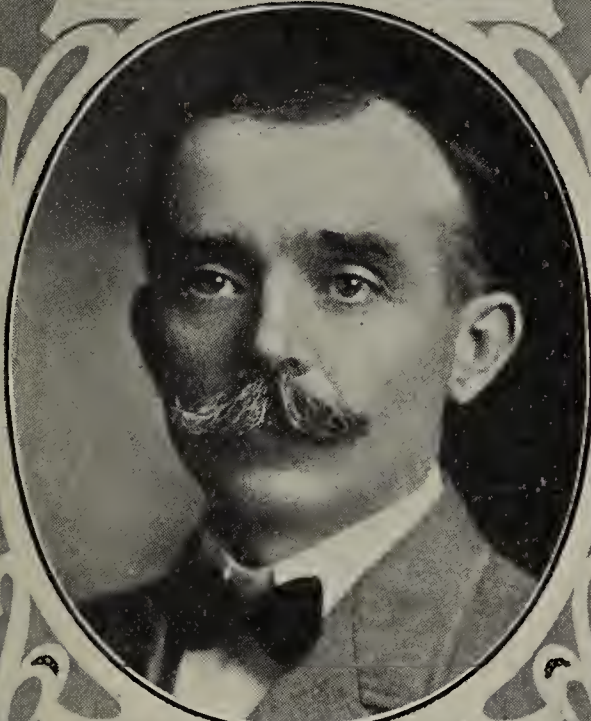
W. B. BARNEY
EXECUTIVE COMMITTEE



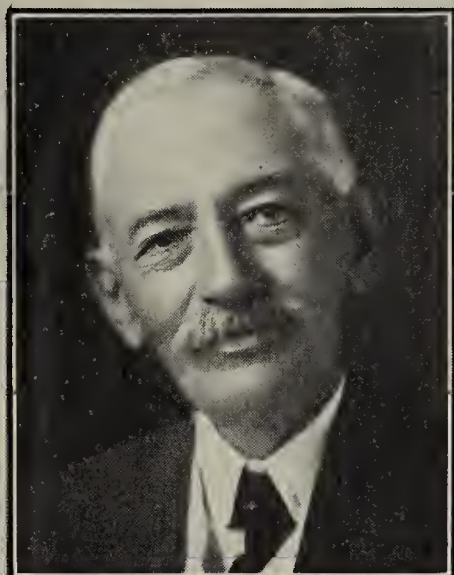
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EXECUTIVE COMMITTEE



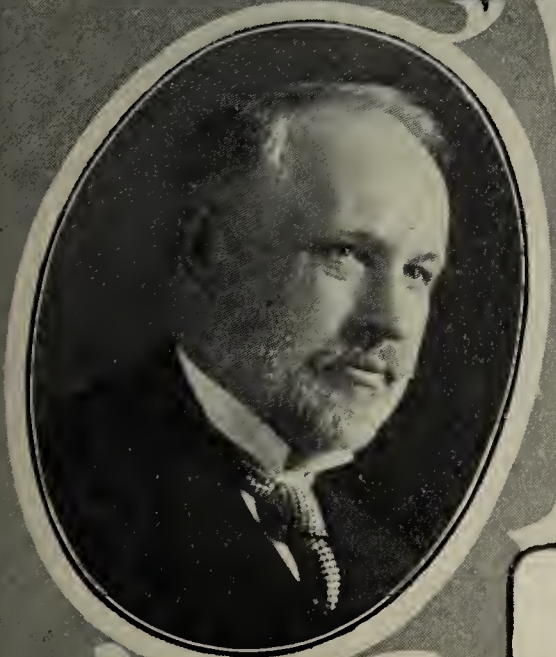
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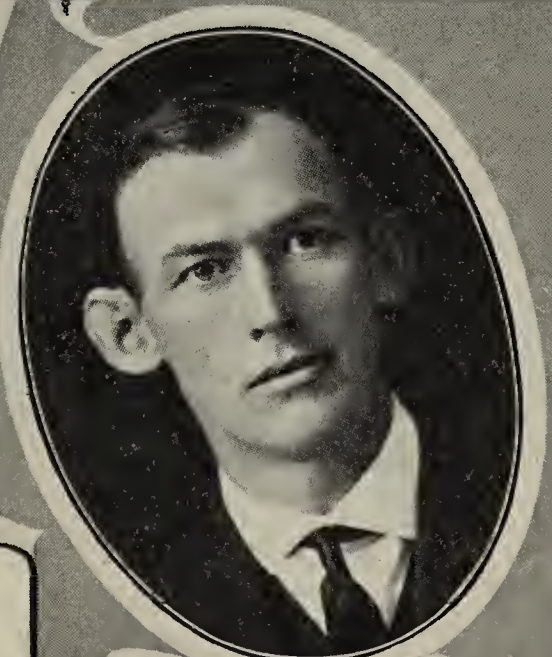
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OFFICERS
of the Association of American
Dairy, Food and Drug
Officials for 1914-15.

COMMITTEE ON CO-OPERATION



THE AMERICAN FOOD JOURNAL

There is no higher art than that which tends toward the improvement of human food.—Beecher.

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The ownership of The American Food Journal is vested solely in the officers of the company. No person, firm or corporation, either directly or indirectly connected with the business it represents, has any share in its ownership or voice in shaping its policy which has in view at all times the best interests of the field it serves. It aims to discuss all subjects fairly, and to furnish its readers information concerning the progress and development of the food industries. It will answer any questions concerning the business to the best of its ability, and it asks its readers in all parts of the world to aid it with inquiries and suggestions, to which it will give prompt and earnest consideration.

VOLUME IX.

AUGUST, 1914.

NUMBER 8.

A Profitable and Pleasurable Convention

THE year of 1914 has been, more than usually, prolific in meetings of bodies of people interested in pure food propaganda, from the angles of producer, distributor and consumer. Not only is there no diminution of interest observable in this vital subject, but there has been a distinct tendency to discuss matters in a large way, and several new organizations have been formed for the specific purpose of studying affairs relating to pure foods, from every conceivable point of view.

Among the various meetings which have been held, however, the one away ahead of them all in influence and vital importance, was the Eighteenth Annual Convention of the Association of American Dairy, Food and Drug Officials, held at Portland, Maine, July 13 to 18, inclusive. The membership of this association is comprised exclusively of officials engaged in food investigation, or regulation work, embracing both state and national departments. Every accredited delegate holding voting power at the convention is an individual who has some active and decisive voice in determining rules and regulations under which the food, dairy and drug manufacturers and distributors of the United States are compelled to operate, unless they carry their objection into the courts and engage in expensive litigation to test their rights. There are no nonentities or mere figurehead delegates at these conventions of the Association of American Dairy, Food and Drug Officials. While, of course, at such a meeting as in all others, there are leaders who direct and take more active and influential part in discussion than some others, it should not be forgotten that when the various officials return home, they have the power directly in their hands to proceed to put into immediate practical operation many of the decisions arrived at by the convention as a body. In his own home state the official is an arbiter and has a power and influence that must be reckoned with.

Representation at the convention was comprehensive and delegates were on hand from the U. S. Department of Agriculture and thirty-one states. They

came from all sections of the country, east, west, north and south. Considering the great distance the far western delegates had to travel to reach Portland, Maine, the number of people who came from the Rocky Mountain country and beyond was remarkable. Most of the delegates and visitors from the vicinity of Chicago and west of that point, gathered at the great central metropolis and composed a large and congenial party. They took a lake and rail route which carried them through some of the most beautiful parts of the country, a splendid scenic trip which had been planned and engineered by the assistant state food commissioner of Illinois, Mr. John B. Newman. Every member of the party was loud in praise of Mr. Newman's arrangements, and this delighted appreciation was shown in concrete manner by the presentation to him of a solid silver platter, suitably engraved.

The appreciation of the courtesy shown by Mr. Newman to all the Commissioners and their families prompted Commissioner Winkjer of Minnesota to burst into song, which was passed as a resolution of thanks in the following form:

Between Portland and Chicago

We are just finishing a trip

With men, women and cargo

And have not lost as much as a grip.

The heat and the sand,

Of the short trip on land,

Have no room in our mind

When we think of the other kind:

The trip along lakes, over river and rapids;

With soft, wafting breezes and scenery thrown in gratis;

Where Dame Nature has gone plum crazy

And awakens the spirit grown lazy.

For a pilot on this trip

We have had the genial knight of the grip, Newman.

Small but a true man;

He has done his work so well

That his honors we have to swell.

Since before he was only a knight of the grip,

I move you, my friends,
That when this journey ends
He also becomes Commodore-General of the trip.
We all have our sweethearts by our side or in mind;
And since Mr. Newman has also one of the kind,
I further amend my motion:
That Mrs. Newman share the same promotion.

These conventions are not of a nature or character to attract the attendance of consumers, or the public in general, it being naturally assumed that the officials themselves are primarily the consumers' representatives. Indeed, it has in the past been openly charged that the Food Control Officials, speaking generally, have too exclusively represented the supposed interests of consumers, and been more than necessarily zealous in protecting them. We may almost say that down to the present year, food producers and distributors have felt their rights have been largely ignored and that there has existed a lack of disposition on the part of the commissioners to confer and co-operate with manufacturers. It cannot be denied that too long a most deplorable feeling of antagonism between officials and the commercial representatives of the food producing industry was manifest. Happily this is becoming very rapidly a thing of the past, and the convention just held was conspicuous for the spirit of co-operation that prevailed and the universal feeling of all that the hitherto invisible barrier which has stood between officials and the commercial interests is swiftly moving toward complete obliteration.

It is always interesting, even to a casual student of affairs, to note the unconscious process of evolution of any cause. There is no tangible influence at work cutting new channels of thought, or to change view points, but in the natural course of human progress there come alteration and adjustment to conform to the spirit or tenor of the times, and the uppermost needs of the hour. When, however, one pauses to look back and note the changes which have occurred sometimes they are so great, as to suggest not merely evolution but revolution.

The publisher of THE AMERICAN FOOD JOURNAL has for fifteen consecutive years, attended these conventions of Food and Drug Officials and finds it both interesting and instructive to note the growth and progress that has taken place during this past decade and a half. Fifteen years ago the meetings were comprised of a mere handful of earnest men interested in securing purer and more wholesome food, and promoting an educational propaganda that would arouse the public to the great need for adequate pure food laws before anything really important could be accomplished. A few more years passed and the Federal Food and Drugs Act became a law. At once State Legislatures began to enact pure food statutes and eventually virtually all of them secured satisfactory regulatory laws.

While this convention was exceedingly harmonious in the main we do not wish to be understood as suggesting it to have been a cut-and-dried affair. On the contrary, there was sufficient spirited discussion and forcefully expressed difference of opinion to insure that the topics which came up for consideration were given thorough consideration from all points of view.

The controversy over the use of minute quantities of albumen in baking powder was before the convention, a determined effort being made by the albu-

men users to prevent the convention going on record against the fraud. Their efforts were unavailing. Dr. Ladd read a strong paper protesting against the use of albumen in baking powder and the research paper by Dr. Jackson of Idaho showed conclusively that the albumen was no aid in the baking, a fact which previously had been determined by the National Government authorities. After listening to these expressions, all the food officials present, both state and national, voted unanimously for a ringing resolution which not only condemned in general terms the use of minute quantities of albumen in baking powder merely for the sake of using the name on the label, or otherwise importing fictitious value, but also denounced specifically and by name the fraudulent water glass test by which albumenized powders are unfairly and unfavorably compared with other baking powders, which may be stronger and better than the "albumenized" powder.

"Manufacturers' Day" an idea originated by President Wallis, proved a big success, and attracted a large number of producers and distributors to the convention. The full attendance of the delegates at the sessions when the commercial interests gave their addresses was a matter which prompted many expressions of satisfaction and demonstrated the keen anxiety of the delegates to hear first hand presentation of the manufacturers' contentions.

The manufacturers declared (and in this they were cordially seconded by the officials) that the wilful substitutionist and food adulterator is now rare. Wise manufacturers, from self interest if not from a recognition of public rights, should be and are just as anxious to produce pure products, correctly label them, and sell them under honest methods as are Food Control Officials.

It was stated to be emphatically true that the prosperous food manufacturer of today is the one who operates a modern factory, under the best equipment and sanitary surroundings, and who uses pure and wholesome ingredients in his products. Food manufacturing is a commercial proposition pure and simple. It is not in any degree philanthropic. The owner of the factory must produce what the public wants. The very strongest argument to the manufacturer to make foods of purity and adequate nutritive value, is that such is the character of products the enlightened public of the present day demands. To offer to consumers foods of any other kind would simply mean financial ruin. The manufacturers generally expressed it as their earnest desire to conform to the laws, carefully observe official rulings and regulations and asked for a fair consideration of their problems and difficulties before regulations are promulgated.

Standards sanitation and uniform legislation both were very live subjects at the convention, and there was scarcely a session on the program which did not include discussion of some phase of these topics. The prominence given these subjects illustrated the evolution of pure food regulation from the realm of the purely technical and scientific to the field of more practical and mechanical considerations.

The crying need for greater uniformity in food laws is keenly felt by all interests, and officials, manufacturers and distributors found this as well as the subject of the necessity for specific food standards, common ground upon which they could agree to meet and co-operate heartily.

Dr. Crumbine's address on the need for supple-

menting the food laws with false advertising laws struck a responsive chord and a committee was appointed to further the enactment of such laws. A comprehensive digest of false advertising laws was printed in the previous issue of this journal and copies thereof can be supplied on request to those interested.

"From a public health standpoint, false advertising might be put in two classes: first, that which is purely fraudulent and deceptive; second, that which is inherently harmful. In the first class will come those statements, designs or devices concerning values or quantity which are fraudulent or deceptive and which affect only the pocketbook of the purchaser. An illustration of such kind of advertising is the dealer who advertises that he will conduct a sale on 3-pound canned goods, or on gallon packages of syrup at reduced prices when, as a matter of fact, the canned goods do not weigh three pounds nor the syrup packages measure out one gallon. An investigation of the label will not reveal any false statement thereon as to the correct weight or measure, and thus the food and drug law has not been violated, although the consumer has been grossly deceived by reason of the false advertisement appearing in the newspaper. The responsibility for this class of advertising does not rest with the publisher, as he has no means of knowing the truth or falsity of the copy presented to him for publication. It cannot be charged, therefore, that the ethical code has been violated by the publisher in accepting such advertisements. However, society, through the enactment of law, should hold the dealer responsible and require that statements for the delivery of goods advertised must accord in both quality and quantity with the statements appearing in the advertisement."

A tremendous amount of ground was covered by the convention program, and if any criticism at all could be made, it would be that it was too "hearty" a meal for the delegates to properly assimilate. However, the attendance was good at all of the sessions.

In order to expedite matters, several evening sessions were held, which permitted adjournment to be taken a little ahead of schedule. It would be somewhat of a miracle if so extensive a program did not suffer some unexpected omissions of numbers owing to absence of speakers. In this respect the convention was very fortunate, however, and very few reports or addresses were of necessity for this cause eliminated from the scheduled program.

President Wallis, who occupied the chair throughout the convention, proved himself to be a splendid presiding officer. He was fair to everyone and none of his rulings were even questioned. There is probably no one more conversant with the history of pure food and food control work in the United States than President Wallis, who is one of the oldest state commissioners in point of service, now in the work. In his annual address he pointed out briefly but forcibly what had been the conspicuous accomplishments in the pure food world in this country during the past year, and called attention to the lines of effort requiring urgent and careful attention at the present time.

He stated that surprising progress had been made during the past year in bringing to a state of adjustment the theoretical and practical in food control work. The great needs of the hour he contended to be co-operation and uniform standards. "It is not extravagant to say that no single pure food meeting ever held was

fraught with more significance than the Conference on Co-operation, held in November, 1913, at Washington, at the invitation of the Secretary of Agriculture," he said. "The men there assembled, national and state, met in spirit of good will, resolved from that time on not only to fight the great fight shoulder to shoulder, but to work out a definite, comprehensive plan which would make it a winning fight."

The United States Department of Agriculture was represented by several prominent members, including Dr. Carl L. Alsberg, Chief of the Bureau of Chemistry. Dr. Alsberg took active part in the deliberations of the convention. His address on "General Standards" was the feature of the second day's session. He discussed this vital subject in a broad and comprehensive manner, calling attention both to the value and danger of food standards. He said the adoption of general standards would vastly simplify the enforcement of food and drug laws, and most prosecutions would be reduced in the main to questions of chemical analysis, or exact science. He warned, however, against making standards too high and inflexible, and said: "In these days of keen competition and high prices, the establishment of standards based upon luxury or unusual quality would be of doubtful service to the people. There is a place and a level for every wholesome food. It must be our duty to see that each article finds its proper commercial level."

"However, we must not merely be on guard that standards do not exclude any wholesome food from commerce, but we must also take care that the standards when established do not become rigid and inflexible. They should be easy to modify and to change. Rigid standards may not merely work injustice; but they may also hamper progress in the manufacture of foods. This is really a serious danger. With our population concentrating in large cities, our food industries must change to meet the demands of a civilization based no longer on agriculture alone. If our people in our great cities are to be fed, our standards must not hamper progress in the food industries, provided such progress does not result in deception, fraud, or danger to the public health. Therefore the interests of the consumer demand that in the enactment of standards some simple machinery be provided for their modification to meet new and improved conditions.

"Still another factor that must be considered is that certain types of foods can not easily be standardized with any great exactness. These are the foods in which the personal taste and preference of the consumer dictate the composition. For them we must content ourselves with establishing general principles which will leave sufficient latitude for the full exercise of individual tastes. If we were to do otherwise our standards would degenerate into a compilation of cook book receipts.

"I believe the time has come when a sincere effort to establish standards will meet with but little opposition. The honest manufacturer as well as the consumer will be protected by proper standards. The manufacturer will have a firm and known basis on which to do business. At present all is confusion. Uncertainty will largely disappear and uncertainty is the death of trade. Uniformity will grow out of the existing chaos. The honest manufacturer knows well that his interests and those of the consumer are identical."

CARL S. VROOMAN, ASSISTANT SECRETARY OF AGRICULTURE.

THE appointment of Carl Schurz Vrooman of Bloomington, Ill., to the position of Assistant Secretary of the U. S. Department of Agriculture was announced on August 1, and was confirmed by the Senate Aug. 12. The office was made vacant by the resignation of B. T. Galloway, on Aug. 1, 1914. Mr. Vrooman is a well known Democrat and until his recent withdrawal from the race was a candidate for nomination for the office of U. S. Senator from Illinois.



CARL S. VROOMAN, Assistant Secretary of Agriculture.

He is a man highly educated, widely traveled, a student of economics and one of the most successful scientific farmers of Central Illinois.

His appointment to the office of assistant secretary was made at the personal request of Secretary of State Bryan, Senator Owen of Oklahoma, and Senator Lewis of Illinois. That Mr. Vrooman is well fitted for the position is generally acknowledged. He was educated at Washburn College, Topeka, Kans., and at Harvard University, at which latter institution of learning he spent three years specializing on the subjects of economics, history and government. After his graduation at Harvard he went to Oxford and specialized in political economy.

After he went abroad he made an exhaustive first-hand investigation concerning political and economic conditions in the principal European countries. The results of these studies he embodied in numerous magazine articles, and in his work, entitled "American Railway Problems." This volume is recognized by students at home and abroad as one of the most important contributions yet made to the literature of this great subject.

Mr. Vrooman has extensive farm land holdings in Illinois and Iowa amounting to about five thousand

acres, all of which he farms directly or indirectly. He is an enthusiastic alfalfa grower, and, indeed, in all his endeavors is modern and progressive to a marked degree.

Mr. Vrooman never hesitates to hire brains when occasion arises. Indeed the hiring of brains is characteristic of all his farming operations. When expert technical advice is needed he gets a specialist—a soil specialist or a crop specialist as the case may demand. He says he can employ young men just out of agricultural schools who know more about the chemistry of soils than he ever expects to know and he believes that the man who conducts large farming operations owes it to himself to take advantage of the opportunity to profit by the science of the young men from the universities—men who would probably score financial failures at farming for themselves but who have special knowledge that will go a long way toward enhancing the success of the practical farmer.

"It seems to me," he says, "that the straight science of agriculture has been developed to a point where it is far in advance of the science of farm administration. I have no difficulty in securing men competent, to give satisfactory advice on problems of soil fertility, but it is difficult indeed to find men who are competent to run a farm as a business proposition. Running a farm certainly is a business proposition, yet it is astonishing how rare are the 'practised' farmers who show even the rudiments of a business method in conducting their affairs."

Mr. Vrooman has devoted a deal of thought and study to this phase of the farm problem and it is safe to assume that he will lay stress upon the business end of farming in his work with the department of agriculture.

Mr. Vrooman is a native of Missouri, in which state he was born at Macon, in 1872. His family moved in turn from Missouri to Illinois, then to Kansas, and in 1900 Mr. Vrooman returned to Illinois, locating at Bloomington, which city has from that year until the present been his home. He was married in 1896 to Miss Julia Scott, daughter of Mrs. Matthew T. Scott of Bloomington, and niece of former Vice-President Adlai E. Stevenson.

Mr. Vrooman is a gentleman of large calibre, liberal and progressive in his ideas and methods and his natural temperament and superior qualifications in all respects are such as to eminently fit him for the duties of the important post to which he has been appointed.

NEW MEMBER OF COMMITTEE ON AGRICULTURE.

On July 16, Charles H. Sloan of Nebraska tendered his resignation as a member of the Committee on Agriculture to the Speaker of the House of Representatives. The resignation was accepted and Sydney Anderson of Minnesota was immediately appointed to the vacancy on that committee.

SACCHARIN CASE NOT TO BE REHEARD.

The Supreme Court of Missouri on July 25 overruled a motion for a rehearing of the saccharin case which that court recently decided favorable to saccharin, holding that the amount of saccharin in soda water was so small as to be negligible.

THE ALBUMEN FRAUD.

IN the June issue the AMERICAN FOOD JOURNAL took strong ground against the use of albumen in baking powder and urged all manufacturers to discontinue its use. In part the editorial reads as follows:

"The National Pure Food authorities, Dr. Ladd, Food Commissioner of North Dakota; Dr. Abbott, Food Commissioner of Texas; Commissioner Wallis, of Idaho; Commissioner Mickle of Oregon, Commissioner Hansen of Utah; Commissioner Groshon of Wyoming; the pure food authorities of Rhode Island and New Hampshire; Commissioner Dinsmore of Nevada; Dr. Crumbine, Food Commissioner of Kansas; Dr. Cogswell of the State Board of Health of Montana, have all denounced the use of albumen in baking powder, as leading to fraud and deception. If it were not a fraud, these eminent and disinterested men would not have pronounced it a fraud. The AMERICAN FOOD JOURNAL accepts their findings and urges upon manufacturers the bad taste and folly of attempting to hamstring the food officials on legal quibbles in the courts. This journal has always condemned food officials who persecuted honest manufacturers on technicalities, but it cannot stand for the defense of a proven fraud. Let all manufacturers comply with the rulings of the Food Commissioners and cease the use of albumen. It serves no purpose but to deceive."

In the meantime the Federal Court in Idaho has passed on the merits of the matter with the result that the water glass test is prohibited in the state of Idaho, squarely on the ground that it is a fraud. Although albumenized powder may still be sold there in the face of the fact demonstrated and published by Government and State chemists that the only purpose served by albumen is to make possible the fraudulent water-glass test, it is difficult to see how it will benefit any manufacturer to continue the sale of "albumenized" goods in the state of Idaho.

The Food Commissioners at their annual convention in July (the proceedings being printed elsewhere in this issue) unanimously and without a dissenting vote passed the following resolution denouncing the water-glass test used in comparing albumenized powders with other baking powders not containing that ingredient.

"Resolved, That this Association vigorously condemns that existent practice involving the addition to food of a small or inappreciable amount of any substance, where such addition is obviously for the purpose of naming the substance upon the label, or otherwise to the end of imparting a value which is fictitious; also those methods of treatment, demonstration or representation generally which are misleading in effect or founded upon false principles. *And in this connection we denounce the fraudulent water glass test used with "albumenized baking powder in comparison with other powders."*

The decision of the Federal Court in Idaho barring the fraudulent water glass test and the unanimous action of the Food Commissioners at the Portland Convention in condemning the fraud is a complete vindication of the position taken by this paper.

An effort is now being made by interested parties to make it appear that the question of the use of albumen in baking powder is merely a trade controversy and not a question of the deception of the people. Such a statement begs the question and is an insult to every food commissioner in the country. It is merely an attempt to becloud the issue, but it will fail, for now the Federal Courts and the National Association of Food Commissioners are both on record against the albumen fraud. The only ground for the statement

that this is a trade fight is the fact that practically all manufacturers of making powder are now on the side of honesty and fair dealing and naturally they desire to see the Food Commissioners succeed in forcing the small minority who still persist in the use of a discredited ingredient into stopping their deception of the people by the notorious water-glass test.

A manufacturer of "albumenized" baking powder, it is announced, has retained a "Legislative agent" in Washington, D. C. Judging from the activities of this gentleman, his title is a misnomer, for he has been sending out "News" from Washington on the albumen matter which is obviously colored to shade in with the views of his employers. The "Interstate Grocer" of July 18th exposed the plan, but some of the Washington correspondents of Western newspapers have been sending out the stuff as real news. Either these correspondents have been misled or it has been another case of doing something to help a friend. The trade papers generally have printed the stuff as the outgiving of a press agent, but some daily papers fell for the scheme and printed the matter as real news.

Manufacturers would better realize that the days have gone when it is possible to put over a fraud through the employment of news fakirs. Such a move is a confession of the weakness of their cause. They would better heed the admonition of the courts and of the National Association of Food Commissioners, and do away with fraudulent tests and deceptive methods of salesmanship.

Albumen in baking powder is no help in the baking. It is used for a fraud and its use must stop.

ILLINOIS COMMISSIONER IS HONORED.

ASIGNAL honor was conferred upon the State of Illinois when the Hon. W. Scott Matthews was chosen by his associates in the Convention as Chairman of that very important Committee on Co-operation. This is the most important work now being considered by the Government and the different states so recognized by the Government that they have created a department and placed an ex-food official at its head, and recognized by the different states to the extent that they have all pledged their co-operation with this new department. And the fact that these Commissioners in convention assembled chose the Hon. W. Scott Matthews, Commissioner of Illinois, who has been in the work but a year, to head the committee in charge of co-operation between the different states and the Government, is a testimonial of his earnestness and sincerity in the prosecution not only of food work in his state but by a prosecution of the food work all over the United States.

We congratulate the Commissioner upon his appointment and we congratulate those interested in this work that so efficient a man was chosen by them, and we do not hesitate to predict that great strides will be taken along this work of co-operation before the next convention.

Commissioner Matthews succeeds no less a person than Dr. Crumbine, who was elevated from this position to that of president.

HOLDS HAM WRAPPERS ARE NOT CONTAINERS.

THE attorney general of California recently gave out an opinion holding that wrapped hams and bacon are not in containers or receptacles, within the meaning of the California Net Weight Statute, and therefore need not be marked with the weight.

In his opinion, the California attorney general said:

Inasmuch as the purchaser may always demand the delivery of hams and bacon unwrapped, billed to him at their net weight, and inasmuch as the wrapping placed around them is for the benefit and convenience of the purchaser, it cannot be said that any deception or fraud is practiced upon the purchaser when hams or bacon are sold to him in such wrappings, without marking the net contents thereon.

Section 6 of the act especially exempts from its provisions all sales of commodities made from bulk where the quantity is "weighed, measured or counted for the immediate purpose of such sale." Where commodities are sold by the package, can, box or bag they are not weighed for the immediate purpose of the sale, and the purchaser relies on the seller's representation as to the net contents. Where a ham or side of bacon is sold it must necessarily be weighed for the immediate purpose of the sale and such a sale comes within the exemption of section 6.

Furthermore, I cannot believe that a piece of paper or cloth wrapped around a commodity such as a ham, even though pasted or sewed together, is a "receptacle" such as that contemplated by section 10 of the act. The term "container" or "receptacle" is not far different in meaning from "package." Other acts requiring the marking of the net contents of commodities sold "in package form" have been interpreted as not requiring the marking of wrapped hams or bacon, and I believe that such is the proper interpretation of those acts.

I am, therefore, of the opinion that the Net Container Act does not require the marking of the net weight of a ham or side of bacon upon any paper or cloth covering in which they may be wrapped.

This is in accord with a recent ruling by Dr. Carl L. Alsberg, of the U. S. Bureau of Chemistry, who holds that wrapped hams and bacon are not "in package form," and are therefore exempt from the Federal Net Weight Law.

On the other hand, the attorney general of New York state has just given an opinion to the effect that wrapped meats are in package form and under the New York Net Weight Law must bear the label as to the actual weight. However, the New York Statute is much broader and more comprehensive than the Federal Statute and the state laws patterned thereafter, so that the opinion in New York can not be regarded as a precedent in the other states. It is understood moreover that a friendly test suit has been started in New York and the breath of the Courts will be taken on the matter.

ICE CREAM BULLETIN IN GREEK.

The Illinois Food Commission is fully alive to the necessity for informing dispensers of ice cream as to how to equip and conduct their stands, keep them clean and sanitary in conformity with the law, and recently issued a bulletin, No. 28, on this important subject.

On account of the fact that so many ice cream parlors are conducted by Greeks, Commissioner W. Scott Matthews decided to have the bulletin translated in the Greek language. This was done and publication has just been made of the translation in a confectioners paper, which circulates widely among Greeks. While this entailed considerable expense, the innovation it is believed will be of untold value to consumers for in this way it is estimated that fully 30,000 Greek ice cream dispensers who could not read the bulletin in its English form, are reached and benefited.

OFFICIAL AGRICULTURAL CHEMISTS TO MEET.

ANNOUNCEMENT is made by Dr. Carl L. Alsberg, Secretary of the Association of Official Agricultural Chemists, that the thirty-first annual convention of the organization will be held in Washington, D. C., November 16-18 inclusive, at the Raleigh Hotel.

A comprehensive program has been prepared which includes a wide variety of subjects germane to the interests and duties of official agricultural chemists, while those who are to discuss them before the convention are among the best informed and most prominent chemists in the country. One whole forenoon session will be devoted to the consideration of the subject of "Food Adulteration." The matter will be discussed exhaustively and include a large number of topics as follows:

Colors, Saccharine Products, Fruit Products, Wine, Beer, Distilled Liquors, Vinegar, Flavoring Extracts, Spices, Baking Powder, Meat and Fish, Fats and Oils, Dairy Products, Cereal Products, Vegetables, Cocoa and Cocoa Products, Tea and Coffee, Preservatives, Water in Foods, Organic and Inorganic Phosphorus in Foods, Heavy Metals in Foods. Each subject in the symposium has been assigned to an expert in the line.

This is one of the most important meetings of its kind to be held this year, and the work of the convention will be watched with much interest by all.

TRI-STATE PACKERS WILL CO-OPERATE.

Co-operation is in the air everywhere. The Tri-State Packers' Association at a meeting held on July 16 at Princess Anne, Md., and adopted a standard for canned tomatoes as follows:

"Cans to be packed in conformity with F. I. D. 144, of the sound and ripe tomatoes of the run of the crop, not necessarily all red. The tomatoes to be peeled and cored as carefully as possible."

The meeting was addressed by Mr. W. G. Campbell, Chief of the Eastern Division for the enforcement of the Federal Pure Food law, and Dr. W. G. Tice, of the New Jersey Laboratory of Hygiene. At the close of Mr. Campbell's address in which he asked the hearty co-operation of the canners with the government officials in the enforcement of F. I. D. 144. The following resolution was adopted:

"Resolved, That the Tri-State Packers' Association endorses the efforts of the government inspectors to rigidly enforce the regulations of F. I. D. 144, and that it will heartily co-operate with them by assisting in exposing violations of the Pure Food Law."

WHAT MICHIGAN DEPARTMENT DID IN ONE YEAR.

The Michigan Dairy and Food Department during the year ending July 1, 1914, made 25,000 inspections, analyzed 1,633 food samples, 200 feeding stuffs, 571 drug samples and made 278 prosecutions for violations of the food and drug laws. Education scoring tests for the purpose of improving the dairy products of Michigan were held during the year.

A health and food special train was sent out from Lansing, August 4, on a state wide educational tour and aroused a great deal of interest at all points visited. Thousands of people have been given opportunity to view the exhibits and listen to the explanations of the demonstrations accompanying the train. This is a splendid educational move on the part of the Michigan Department.

Official Proceedings of the Eighteenth Annual Convention of the Association of American Dairy, Food and Drug Officials.

At Portland, Maine, July 13th to July 18th, 1914

OFFICERS OF THE NATIONAL ASSOCIATION OF AMERICAN DAIRY, FOOD AND DRUG OFFICIALS, 1914-1915.

President—DR. S. J. CRUMBINE, of Kansas.

First Vice-President—DR. E. F. LADD, of North Dakota.

Second Vice-President—MR. H. C. SMITH, of Utah.

Third Vice-President—MR. A. M. G. SOULE, of Maine.

Secretary—MR. M. W. ALLEN, of North Carolina.

Treasurer—MR. F. A. JACKSON, of Rhode Island.

Executive Committee—MR. JAMES H. WALLIS, of Idaho (three year term); MR. W. B. BARNEY, of Iowa (holdover, two year term); MR. JOEL G. WINKJER, of Minnesota (holdover, one year term).

Co-Operation Committee—MR. W. SCOTT MATHES, of Illinois.

Co-Operation Committee—MR. F. H. FRICK, of Missouri.

Co-Operation Committee—MR. M. E. JAFFA, of California.

THE 1915 ANNUAL CONVENTION WILL BE HELD AT BERKELEY, CALIFORNIA.

(Compiled from the Report of the Official Stenographer of the Convention.)

MONDAY, JULY 13, 10 A. M.

Presiding: Commissioner James H. Wallis, Idaho, President.

President Wallis: The convention will please come to order (10:50 a. m.). Gentlemen of the convention, on account of a change in the plans of the executive of the state of Maine, the arrangements on the program as circulated for addresses of welcome, so far at least as that of the governor of the state of Maine is concerned, cannot be carried out. We have with us, however, the Mayor of Portland, the Honorable Oakley C. Curtis, and the President of the Portland Board of Trade, the Honorable Frank M. Lowe, who have only received a brief notice that they were to make addresses of welcome here but they have come to our convention this morning and we will be delighted to hear them. I take great pleasure in introducing to the gentlemen of the convention, Hon. Oakley C. Curtis, Mayor of Portland.

Hon. O. C. Curtis: Mr. President, and members of the Association of American Dairy, Food and Drug Officials: As your president has just stated to you, I did not know until just this moment that I was expected to address this meeting at just this time, and my mind is not exactly filled with foods and drugs and therefore it would be out of order for me to attempt to go into details because I am not acquainted with them. However, it gives me pleasure to welcome you to Portland. We have one of the best cities in the United States. We are glad that you have come at this season of the year and we want you to see our surroundings and our many beautiful islands. We are right on the sea coast and we believe we have one of the best climates in the world. In the evenings we have the fine sea breezes which prepare us and supply us with the energy necessary for the day to come.

In looking over your program I think I can realize in a general way the import of your great organization and what it means. It occurs to me that it would be a good and beneficial thing if merchants should come here to get acquainted with your ideas and what they mean, because I have found in a great many cases that merchants fear that something detrimental to their business is being hatched up in meetings of this kind, but by coming here and finding out what you

food commissioners do intend to do and by getting acquainted with you they can see very plainly that an organization of this kind and its work is a protection to their business and not a detriment. (Applause). Therefore, I will not, as I said, not being acquainted with the full purport of it (not really knowing any of the details), I will not attempt to go into any of the various points—but I will say that I sincerely hope that you will deem it advisable to have your convention here at some future time and that you will do a great deal of good. (Applause).

President Wallis: Mr. Frank M. Lowe, president of the Portland Board of Trade.

Mr. F. M. Lowe: Mr. President, gentlemen: It makes us feel pretty good to think that such a distinguished gathering of gentlemen, coming here from all parts of the country, should choose Portland as a convention city. And I hope that you gentlemen will find the time, outside of your serious deliberations here, to see our city. We have three hundred and sixty-five islands here in the bay—I wish you might spend a day on each island. (Laughter). I want you to see the two beautiful promenades of the city of Portland—and right here I want to say to you that the Board of Trade has an information office just opposite your hotel, where we can plan little outside trips for you and help to make your stay in Portland pleasant—and I want to extend the offices of the Board of Trade in that direction. I hope that you will be so well impressed with our city that you will want to come to us again, and it gives me great pleasure to welcome you here. I thank you. (Applause).

President Wallis: Commissioner Strode of Ohio will respond in behalf of the organization.

Com. S. E. Strode: The Mayor of Portland, the President of the Board of Trade, Mr. President of the Convention and Fellow Delegates:

Responding to addresses of welcome is not my forte. If I have any forte at all it is the kind that is built up by patient preparation and you can't make any preparation for a response to an address of welcome because you don't know what the address of welcome is going to be. You don't know what the man is going to say. It would be like dodging a ball or rifle bullet

or making preparation to do so before the gun was fired.

In many conventions of the higher type they start off things right with the drop of the Chairman's gavel. They are dispensing with addresses of welcome by Governors and Mayors and Presidents of Boards of Trade and others, and get down to work immediately. I am in favor of the latest thing in running conventions, in favor of that way of doing it. Now if we had not been waiting for the addresses of welcome and waiting particularly for the response to the addresses of welcome we might have been pretty well along with the chairman's address by this time.

I am glad of one thing, however, and that is that the addresses of welcome were brief. There will not be so much to respond to, you know. But anyway I liked the addresses. They were not as full of old stock expressions and the old stereotyped phrases about handing over the keys of city and all of that kind of thing—you know the usual run of addresses of welcome—but I really think they were pretty good addresses of welcome and I, for one, feel welcome to this city and to Maine.

You know we did not intend to come to Portland last year at Mobile when we were talking about the place of meeting for our convention this year. When we were in Mobile we did not intend even to go to Maine—but we are here now. I don't know whether we all know *why* we are here or not. One fellow coming down the street with me from the Congress Square Hotel, said, "Well, I suppose we are here because we are here," and another fellow spoke up and he said, "No, we are here because we were inveigled into coming here, over-influenced and hypnotized into doing it when we were down there in Mobile." Well, we are here now and I for one am glad of it.

Portland, Maine, is the eighteenth city in the eighteenth state in which we have met, in which this association has met. Now that doesn't necessarily mean that Maine stands eighteenth in the list of desirable states from the delegates' viewpoint. That is not the basis of selecting the meeting places for these conventions. If it was Ohio would have had this convention years ago. We would have had the first one. But that is not the basis of selecting places for these conventions to meet. If it was, probably Maine might not have gotten it for a quarter of a century yet.

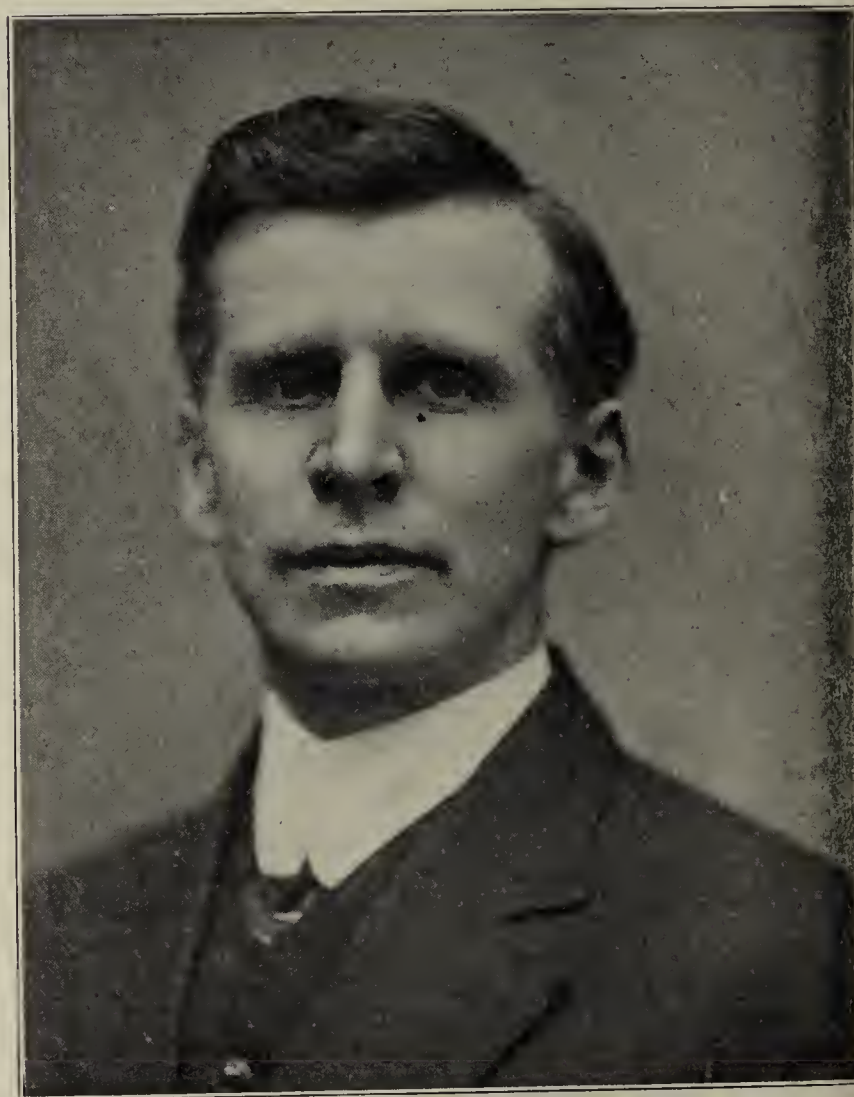
We might as well confess that many of us did not have any very great ideas of the importance of Maine. We had heard things said, however, about the things that made the state famous—we had heard something about her rocks and her rock-bound coast but the most of us had had our fill of rocks. I know that I had had my fill of rocks before I was even twenty-one years of age—picking them off of a hillside farm in Ohio. And then we had heard something about her woods, oh, the woods of Maine! But the most of us in the central west are congratulating ourselves that we are out of the woods. And we have heard a good deal about her sweet corn, we heard something about that at first hand may be, but the most of us attributed that to her short season and her poor soil. And then we have all heard about Maine being the hunter's paradise—but from the newspaper reports we have had from time to time we take it that

game is actually so scarce and so rare a thing up here in these woods of Maine that the hunters take to killing each other to get any sport at all and then it depends entirely on how those hunters had lived during this life whether those woods of Maine turn out to be the hunter's paradise or some other place we have also heard something about.

And then we have heard about her potatoes. In the schools of Ohio when I was a boy going to school they used to have a song that told about her fame in raising potatoes. I have forgotten all of that song now but just the closing of it and I can remember that now—all except the tune—and it runs something like this:

"Oh, the potatoes they grow small up in Maine,
Oh, the potatoes they grow small up in Maine;
And they eat them skins and all up in Maine."

I don't know whether that slanders the people in Maine or not, or whether it slanders the potatoes or



S. E. STRODE, Food Commissioner of Ohio.

not. I did not get to see them growing and if I had, I couldn't have told just from their tops whether they were big or whether they were little.

But my point is that now we are up here to see for ourselves. We expected to go up to Mt. Kineo, you know. That is the reason you have all these wives with you today. You got the notion into your heads that when you went to Maine this summer you were going up to Mt. Kineo and so you broached the subject to your wives and right away they said they were coming along too.

And you remember how you came to vote for Mt. Kineo, don't you? I remember Mr. Gayman and my-

self, delegates from Ohio, had some ideas then about it. You know we held our convention last year in Mobile, Alabama, and we had a pretty strenuous session, too. The air was hot. It was high not only in temperature but in the humidity. Our days were tiresome days and our nights were wakeful nights—wakeful from forced attention, forced listening to an orchestra of those Mobile mosquitoes, the full grown variety of Mobile mosquitoes, and if we didn't listen to that orchestra of mosquitoes, why then we generally got punctured. They punctured down a ways and let a little wind out. The wind didn't always come out right then. The wind didn't come out until the next day in the convention, but plenty of it came out then. And, gentlemen, it was at the close of that hot, tiresome, awful session down there in Alabama when the question came up of where we would go next year—and Dr. Ladd had it all figured out where we were to go, too—but you remember how the "Maine woods" came in. I claim we got here, we are here now because of the *magic* of the Maine woods we heard about that day down there in Mobile. It was not the evergreen variety but the Charles D. variety of woods that got us up here, folks. And I see he slipped out of it himself, he is not here. But you remember how he arose and in his fine eloquence he said how he would not be so discourteous as to try to get this convention away from his fellow delegates—oh, no, not he! He was too big hearted for that, but he said that there was one condition that must be met and that was that we must have a *comfortable* place to hold our next meeting. We must meet in a place that had a low temperature, for one thing, and he said we must get away from the noises of a busy city and from seeing so many people and then he very modestly, oh, very modestly, mentioned that there was only one place in the whole United States of America that just met that condition and that was up on Lake Moosehead at Mt. Kineo. And then what visions we all had! You all remember that, and you know that not all the fine pictures that are painted are placed upon canvas, that not all of the fine poems are written down in books. You remember the visions you had of those lakes and rivers, where there was plenty of game in the woods and you thought you saw all the fine fish drawn out of that lake with yourself at the other end of the pole, and you couldn't vote quick enough or loudly enough for the next meeting of the convention at Lake Moosehead, Mt. Kineo House. You remember that, don't you? And you could hardly wait until Dr. Woods got through talking to vote unanimously for Mt. Kineo next year. That is the reason you voted for Portland—only you didn't vote for Portland, that's all.

But, oh well, they wanted to bring you here to see this nice building and possibly to show you Portland. Well, I got in here just a few minutes ago but judging the city from the building here in which we are holding our convention, it is the best place in the United States where we could have gone unless we could have gone out in Ohio some place, and so I congratulate Maine in securing this convention. It is the greatest convention she possibly could have gone after and secured. It is the greatest convention she could have obtained because it is composed of the food officials of the various states of the whole United States, and because of the great good work those of-

ficials are doing. Now I don't know but what that sounds a little bombastic but there is nobody else here besides us to hear it and anyhow I believe it is true and I say it advisedly. Of course I know we have other officials in the state government, officials like the secretary of state and the governor and their work is important because it is for the protection of property and anything that concerns property is important because property itself is important.

But this work of the food officials, the food control officials, concerns property and in addition it also concerns something that in my opinion is very much more important than property. And what is that? It is the health of the people. And the health of the people is far more important in my eyes than the wealth of the people and yet we do find some people who act as if they did not believe that. We find them trading their health for wealth and I find a few fellows trying to trade their wealth for health but it is not always so easy to effect the exchange.

Now if anybody disputes the fact, that the work of food control officials does concern health, I think I can prove it does because anything that concerns food does concern health and I think there are about fifty or sixty gentlemen here who are able to demonstrate it, if there is any doubt in the minds of any of you. In forty-eight hours we will be able to demonstrate that point. If there is no other way to do it they could select some of these green apples I saw on sale here on my way down to this building and then you would certainly get some inside information, I am sure.

But the work of the food officials not only concerns health but something even more important than health. What is that? You are probably thinking what *could* be more important than health? I can think of only one other thing that is more important than health. And that is the morals of the people. But how, you ask yourselves, does the food control officials' work affect the morals of the people. Our work is no Sunday School affair, I will admit, but nevertheless it does affect the morals of the people because it affects something that in the past, until a very recent date, has been the means of a basis of contamination that has lowered the moral standard of a large percentage of our citizenship.

I refer now to the unfair and unjust competition and the temptation that it brings to sell adulterated goods, to make them, to produce them and deal in them. I believe the average person who engages in production and manufacture or wholesaling or retailing, starts out with good intentions but he comes up against this temptation I speak of, the temptation to adulterate goods or to misbrand goods or to short-weight goods.

The person who will adulterate his goods 25 per cent by putting in an adulterant lowers the price, say 15 per cent, and the person who misbrands an article worth seventy-five cents so that the consumer will think it is worth a dollar, and then sells it for ninety cents gives the other fellow an unfair deal. It gives the honest dealer a temptation to go and do likewise.

But he reads in his Bible that no man shall be tempted above that which he is able to withstand and he thinks he will be able to withstand the temptation and so he goes on but when he comes to balance up at the end of the year, and takes care of the taxes, rent, the help and everything, he finds he hasn't the money left to take care of the loved ones dependent upon him for support. Then he goes back to that good Book again and reads that "He that will not provide for his own household is worse than an infidel." And, of course, he don't want to be worse than an infidel and he figures along toward the line of least resistance and usually he ends up by doing as the other fellows have been doing and he becomes another dishonest competitor for the honest manufacturer who is just about making a living and running along the best he can. That thing has been going on in this country and those practices were handed down until in many cases, when we awoke up a few years ago to it, we found that with a lot of them it was just the normal state of affairs—they thought it the proper thing to do.

Here is where the work of the food control official comes in, through the enforcement of the pure food laws, through a system of education and a system of warning, a system of inspection, and a system of prosecution. Those things all go to make it more expensive for the manufacturer to do wrong than to do right.

And we make it easier to do right than to do wrong and the pure food laws and the food control officials are a protection, I say, to the honest retailer, the honest producer and manufacturer and protect him—as the Mayor of Portland suggested here awhile ago—from the temptation to lower his moral standard.

I congratulate Maine, and Portland especially, upon securing this Association's Convention just at this time because this is not only the most important association that will meet this year in the entire boundaries of the United States but because it is also the most important meeting that this association itself has *ever* held. With the drop of the Chairman's gavel a few minutes ago I honestly believe was ushered in a new era in food control work throughout the United States. The stage is set, the time is ripe, as I see it, for the consummation of a long series of events that have been culminating, that is going to mean much for the food work throughout this United States of America.

The old patchwork, the old piece work business—every state differing from every other state, ununiformity in laws and ununiformity in enforcing them, ununiformity in the regulations of the different states—all that I believe will give way, with this convention's work, will give way to a spirit of co-ordination and a spirit of co-operation and of team work and I congratulate Maine and I congratulate Portland and I congratulate you, fellow delegates, that we have approached this most important convention of our association. I thank you.

President Wallis: The Secretary wishes to make a short statement to the delegates.

Secretary W. M. Allen of N. Car.: A day or two before leaving home I was taken with an attack of nervous indigestion and since then I have not felt very well and I am going to ask permission to have Mr. Shannon of Michigan to assist me in the work of

this convention and if there is no objection I take it that I can have that privilege.

Mr. R. E. Rose of Fla.: I move that Mr. Shannon of Michigan assist Mr. Allen of North Carolina in the duties of secretary of this convention. Seconded.

President Wallis: You have heard the motion. All in favor of it say "aye"; opposed, "no." The ayes have it and it is so ordered.

Gentlemen of the Convention, I would like to say that we have some badges here for the officers and members of this Association and also for the visitors and those of you who are not already supplied with them we will be glad to fit out if they will come to the desk at the conclusion of this morning's session.

A word as to the seating arrangements. We would like to have these desks occupied by the delegates to the convention. I think you will find them very convenient in the discussion of our papers. You can use them to take notes. And we will be glad if the visitors and guests of the convention will find seats in the room and in the galleries.

The secretary wishes to make another announcement.

Secretary W. M. Allen of N. Car.: Before we adjourn I would like to say that we have registration cards on the first desk by the door in charge of Dr. Geo. B. Taylor of Louisiana, and I would be glad if all the members of the Association, those representing departments which enforce a food, dairy or drug law, would register with Dr. Taylor so that we can have a permanent record of the members of the Association in attendance.

Com. F. A. Jackson of Rhode Island: I think we ought to have the visitors register, too.

Secretary W. M. Allen: There is no particular cause why we should have a record of them.

Com. F. A. Jackson: Then I think it might be a good idea to have the visitors register in a different place. We ought to have a record of them too.

President Wallis: Secretary Allen tells me he hasn't cards enough. But we will have a book here this afternoon and we invite all visitors and guests to register in that. And in addition to your names, we would like to have you place on your cards the name of the hotel where you are stopping in Portland, in case you are needed for any telegrams or telephonic communications. It is very important that we should have that.

In the absence of any further business this morning, the convention will stand adjourned until 2 o'clock this afternoon.

Adjourned until 2 p. m.

MONDAY, JULY 13TH, 2 P. M.

President Wallis: The Convention will please come to order. The first number on the program this afternoon is the reading of the president's annual address.

PRESIDENT'S ANNUAL ADDRESS.

JAMES H. WALLIS.

The year which has elapsed since our last convention has been big with happenings of moment to all who are interested in the fight for pure foods and standard drugs. The large number of papers to be heard at this convention renders it necessary that brevity should be encouraged and to set a good example I will confine myself to scarcely more than a mere mention of the most important happenings.

In November, 1913, at the invitation of the secretary of agriculture, there was held in Washington, the conference on co-operation. It is not extravagant to say that no single pure food meeting ever held was fraught with more significance. The men there assembled, national and state, met

in a spirit of good will, resolved from this time on not only to fight the great fight shoulder to shoulder, but to work out a definite, comprehensive plan which would make that fight a winning fight. The necessities at once loomed large in the minds of us all—co-operation and uniform standards. A committee was appointed to study effective methods of co-operation, and we shall have the pleasure of listening to the report of that committee at this meeting. The fact that the work of that committee is guided by Dr. S. J. Crumrine of Kansas, no less than the distinguished character of the other members, is sufficient assurance that we shall hear that something worth while has been accomplished.

At once the department of agriculture began to do its full share to make it possible for the national and state activities to be co-related and co-ordinated, so that each should supplement the other.

One of the most efficient food commissioners that we have ever had has been taken from his state work and has been placed in charge of the national end. There is no doubt in the minds of anyone of us that no mistake was made in the selection of Dr. J. S. Abbott of Texas for this most important work.

For years it has been apparent to every experienced worker in this cause that efficiency in our work of protecting the health and pocketbooks of the people could not be expected until it had uniform standards. Accordingly, it was decided that we should have a representative committee of nine competent men to form food standards, and we pledged ourselves, without a dissenting vote, to accept these standards and to enforce them. Three members were appointed from the Bureau of Chemistry, three from the Official Agricultural Chemists, and three from this Association. There is not one of the nine who is not especially qualified to serve us in this matter; not one but has our fullest confidence and respect. This committee will also report progress at this meeting. We will be told of the work which already has been accomplished, and perhaps of some plans for the future. On this matter I can only say that to my mind if standards are to be effective they must be uniform, and it will help toward uniformity if the committee is given time to do its work, unimpeded by the adoption of varying standards in the different states.

Before leaving the subject of the Washington conference I cannot refrain from voicing our appreciation of the broad-minded, liberal attitude, and the sincere, disinterested motives of that quiet and self-contained, but strong and forceful man who made that conference possible. In the past year we have come to know, and to recognize our champion and friend, Dr. C. L. Alsberg.

During the year, the matter of tolerations and variances under the federal net weight law have been practically worked out and the results embodied in regulations. In this, as in all other new subjects, opinions will vary on minor phases, but it is to be hoped that the states will, as nearly as possible, follow the national lead.

During the year there have been several court decisions, which will have a decided effect upon the enforcement of the National Food and Drugs Act, and upon the state statutes as well.

The Acetphenetidin case in the United States Supreme Court was a great victory for the federal authorities, and is especially important to the states, since it gives very broad effect to the power conferred upon the various officials to make rules and regulations in furtherance of the purposes of the law.

The decision of the same court in the bleached flour case established the doctrine that it is incumbent upon the government to show not only that the added substance is qualitatively poisonous, but also that it is present in sufficient quantity to produce the possibility of harm to some element of the population. Another phase of the judicial construction of the meaning of the word "added" as used in the national act is found in the Coca-Cola case recently decided by the Circuit Court of Appeals, Sixth Circuit. A casual reading of the opinions of the courts in the above two cases, leaves one of the mind that perhaps there are mighty few teeth in the national act and in the state laws patterned thereafter. It will certainly be of interest if the officials of the department of agriculture can properly tell us what action they contemplate in view of these decisions. Right in this connection let me say that while I am strongly in favor of the movement for uniformity of food laws, that movement must not be allowed to become a cloak to cover an effort to weaken good and just laws. The uniformity we desire is to be secured not by emasculating virile statutes, but by making the weak law conform to the stronger.

Not all violations of our food laws are attacks upon health. Many of them are assaults upon pocketbooks. During the past year in many states strong and effective efforts were made to stamp out some of these frauds. The vast majority of food manufacturers are honest and square, but occasionally we find one who conceives it necessary to his success to hoodwink the public regarding the quality or quantity of the particular food he sells. Such an one is no better than he who pilfers from the public in other ways and he should be dealt with accordingly.

A movement is under way to secure a commission to study sanitary food production, methods of food inspection, and modes of enforcing food laws in foreign countries. I believe this to be a step in the direction of securing broader information regarding our work and I commend it to the careful consideration of this Association.

Another subject which we may well consider is the formulation of some definite policy regarding the place of annual meeting of our Association. Some favor holding the convention in the same place year after year, instancing the advantage of a central location, etc. Others believe it wise to select a different place each year, urging in support of this view that thereby officials are enabled to obtain a broad knowledge of food production and also that the mere fact that the convention meets in a given locality is a stimulus to the work in that region. By meeting in various places, it is also possible to arrange our meetings with reference to the meeting of related and affiliated organizations. I merely suggest this subject for the consideration of the convention.

There are some seventy bills pending in Congress proposing amendments to the National Food and Drugs Act. Any amendment to the national law affects the operation of the food law of each state. For this reason, if for no other, I believe that before reporting favorably or unfavorably upon any proposed amendment to the national law, the officials of the department of agriculture should be at some pains to sense the views of the state officials.

There is one other matter I wish to mention and then I shall have done. We have an innovation on our program this year. We have set aside one day during which we shall listen to gentlemen who manufacture and vend food and drug products. All of us, I believe, are in favor of this step. We believe it proper and fair and mutually beneficial to commissioners and manufacturers, that we come together and publicly discuss those questions and relations which we must meet every day. There have been very many more requests for representation on Manufacturers' Day than could possibly be granted. One day's time is a liberal allowance and those who did not secure the coveted opportunity this year will doubtless be more fortunate another time. Those responsible for the program made what seemed wise selections and I hope the Association will come to the same conclusion.

On Manufacturers' Day we anticipate that eminent representatives of the entire food and drug industry of this great country will be present and consider certain leading questions, having a most important and far-reaching bearing upon and relation to the work in which we are engaged.

The reason for inviting these representatives to be present was founded on the fundamental proposition that the food and drug industry of this nation, occupying, as it does, a large part of its commerce, distinguished as it is from other kinds of commerce in that it is a necessary commerce, represents as a whole, a body of able, conscientious, and law-abiding men and citizens, which body is absolutely and unqualifiedly committed, as is well known, to our work, and to the basic principles underlying it, desiring the most perfect and efficient food and drug laws, uniformly effective throughout the country, and expressing its readiness and willingness to co-operate in every way to that end.

No nation in the world, I believe, can equal, let alone surpass, these United States in the general purity and quality of the food and drug products consumed, which fact is an important element in bringing about the exalted and proud position which this nation occupies in the congress of the world.

But there is much work still to be done; there must be no weak links in our food and drug laws, and their enforcement, national and state. Geography should not and must not be a controlling element in such health and welfare regulations. The whole body of the American law should be raised equally and generally to the highest standard of efficiency. The United States constitutes a single nation, not merely a group of independent and co-related units.

I am firmly convinced that this highest standard of efficiency can only be most readily and most perfectly accomplished by the co-operation of all interested, thereby

merging similar efforts, harmonizing the influence of all and tending to bring about uniform and united action throughout the entire nation. Many and various agencies are now working independently for the same end, as for example the great and influential National Civic Federation, the many and influential organizations of housewives, the several trade associations and committees. Much valuable effort is going to waste for lack of co-operation and co-ordination in this work.

Since the enactment of the Federal Food and Drugs Act on June 30, 1906, a gradual readjustment of opinion and action has been in progress. The creation of active food and drug control departments throughout the country brought about an entirely new condition of affairs. It has taken the food and drug officials some eight years to arrive at the real condition of affairs in the food and drug industry, to ascertain the character of this business, and the character of the men engaged in it, all of which has been accomplished by a careful and impartial investigation and study. On the other hand, the food and drug industry has been able to learn through actual experience that the officials are the vigilant and watchful protectors of the public interest, ready to help, encourage and co-operate with the men who are doing right, or who are honestly trying to do right, but ready also and able to apply the full force of a drastic law in deserved cases. There has not been a better friend of the honest trade than the efficient law and the efficient enforcing officials. There has not been a more bitter and relentless enemy of the dishonest trade than the efficient law and efficient enforcing officials.

So that now, after this mutual experience and education, with viewpoints and purposes fully adjusted and understood, we hope and believe, with mutual confidence and respect instilled, we are meeting for the first time really to confer together. We are American officials in an American association and we have invited our American manufacturers to meet with us, and I hope are with us in a common cause.

Shall not this meeting then mark the beginning of such valuable active co-operation? As already stated a beginning has indeed already been made by the establishment of the division of federal and state co-operation in the Bureau of Chemistry, United States Department of Agriculture, which action has met and must meet with universal approval and commendation. Shall not this Association complete this work so well instituted, and invite the food and drug manufacturers to confer with us and to co-operate with us along well-defined and permanent lines? There are many amendments of the existing laws; there are many new laws; there are more appropriations and more efficient administrative organizations that we desire. If we have the complete and equitable co-operation of the trade how much more rapidly and effectively can these desired results be brought about. Hasty and ill-considered action, a failure to consider all of the elements rightly present defeats itself not only, but defeats at the same time the action that is needed. Such a policy delays proper action, costs money and time, and spells small progress. Let us decide in all cases only after a full, fair and impartial examination of all the facts involved, and a hearing of all the parties interested, and then go ahead to certain success with the good will, the good word, and the harmonized influence and action of all behind it.

This meeting marks the end of the first and the beginning of the second era, I believe, in the history of the food and drug laws in this country. It marks the end of the period of independent and non-uniform action, and the opening of a period of real constructive national work endorsed and co-operated in by all concerned. We have echoed the value of such uniformity and co-operation from Maine to California, from the Great Lakes to the Gulf. Now let us take action and put our suggestions and endorsements into practice. I believe there is to be represented at this meeting the National Food Trades Conference, formed for the very purpose of bringing about a uniformity of law and enforcement, and for affording a medium of co-operation with the federal and state departments. I believe there is a similar organization representing the entire drug industry, known as the National Drug Trades Conference. In addition a committee has just been appointed in the Chamber of Commerce of the United States representing all commercial interests of the country to aid in the attainment of the greater uniformity of the food and drug laws.

Believing, therefore, that it is in the best interest of the cause which we represent, and believing that the time has arrived and is now propitious for such action, I am glad to suggest and recommend most earnestly that this Association

invite the duly accredited and responsible representatives of these and kindred organizations to meet with designated representatives of this Association and the Bureau of Chemistry, in order that a definite and permanent plan of co-operation may be developed and put into effect.

President Wallis: The next number on the program is the report of the secretary, Mr. W. M. Allen of North Carolina.

Secy. Allen: Gentlemen of the Association, the report of the executive committee and the report of the secretary are so closely allied that we have written it into one report, and so that will now be read by Asst. Secy. Mr. F. L. Shannon.

President Wallis: The report of the secretary and of the executive committee will be read by Asst. Secy. Shannon of Michigan.

REPORT EXECUTIVE COMMITTEE AND SECRETARY FOR 1914.

Immediately after the Association adjourned at Mobile, Alabama, June 13, 1913, the members of the executive committee elect met for organization with the following members present:

James H. Wallis, Idaho.
Joel G. Winkjer, Minnesota.
W. B. Barney, Iowa.
W. M. Allen, North Carolina.

Dr. H. E. Barnard of Indiana, the other member of the committee, was absent.

On motion of Mr. Barney, Mr. James H. Wallis was elected chairman of the committee for the ensuing year.

Under the constitution the secretary of the association is secretary of the executive committee.

The secretary was instructed to negotiate with H. B. Meyers & Co., Publishers, of Chicago, in regard to publishing the proceedings of the Mobile, or Seventeenth Annual meeting of the Association.

The secretary was further instructed, in case the proceedings were published, to send two copies of same to the officers of the United States Department of Agriculture and of each state holding membership in the Association, and to send out a circular letter offering the remaining copies to the public at one dollar per copy.

The program for the next annual meeting was discussed, but no action taken in regard to same.

The secretary arranged for publishing in pamphlet form two hundred copies of the complete proceedings at a cost of \$200.

Under instructions from the former executive committee, which instructions were endorsed by the new committee, the secretary furnished H. B. Meyers & Co. with a copy of the proceedings of the Mobile meeting, for which the Association received \$144.50.

The printing of the proceedings was much delayed and they did not reach the secretary until quite late in the fall.

The secretary carried out the instructions of the committee in regard to sending proceedings to members of the Association and circular letter offering same for sale. The letter, however, bore but little fruit, as we had orders for only 14 copies. The demand for the proceedings was probably affected by the delay in getting them out.

About forty or fifty copies each of the proceedings for the years 1910, 1911, 1912 and 1913 remain in the secretary's office. As there will probably not be much further demand for these old copies, I suggest that the Association instruct the secretary to distribute all except about a dozen copies of each year among the members that care for them.

On call of the chairman a second meeting of the committee was held at the Hotel Raleigh, Washington, D. C., at 2 p. m., Nov. 15, 1913, with the following members present:

James H. Wallis, chairman.
Joel G. Winkjer.
W. M. Allen, secretary.

There being a quorum present, the following business was transacted:

On motion of Mr. Winkjer, the place of the next annual meeting of the Association having been named by the Association, the date of the meeting was set for July 13-17, inclusive, there only to be a night meeting on the 13th at which

the address of welcome and response and the president's address is to be delivered.

On motion of the secretary, the president was requested to prepare a tentative program and submit to executive committee for the next annual meeting, it being understood that he will write to various members of the Association requesting them to suggest subjects for program and suitable persons to discuss same.

At this point, attention of the committee was called to a resolution passed by the conference of state food and drug officials with the Secretary of Agriculture and the Board of Food and Drug Inspection on Nov. 14-15, 1913, providing for a joint standards committee, composed of three members from the Association of Official Agricultural Chemists, three members from the United States Department of Agriculture, to be named by the Secretary of Agriculture, and three members from the Scientific Section of the Association of American Dairy, Food and Drug Officials, to be appointed by the executive committee of the Association.

There being no direct connection between the conference and the Association, and as there is no provision in the constitution of the Association for a standards committee, there was a question in the minds of the committee as to whether the executive committee had authority to appoint a committee to represent the Association in a joint standards committee. After consideration, however, it was decided that the committee, under the constitution, did have authority to act for the Association when the latter is not in session. It appeared that the committee not only had the authority to act for the Association, but as the conference was composed largely, almost wholly, of members of the Association, it appeared to be expedient to appoint the committee at once so that they could at least begin to study the subject and equip themselves for the difficult task before them.

The following were appointed to represent the Association in the joint standards committee:

Dr. E. F. Ladd, South Dakota,
Dr. W. F. Hand, Mississippi,
Dr. J. S. Abbott, Texas.

The attention of the committee was also called to a resolution by the conference above referred to in regard to a committee from the Association, to draft amendments to the National Food and Drug Law and to report same to the next meeting of the Association. The committee did not have an exact copy of the resolution before them and there was a difference of opinion in regard to the provision for the appointment of the committee above referred to. The secretary was of the opinion that the resolution provided for the appointment of the Amendment Committee by the Executive Committee of the Association, while Messrs. Winkjer and Wallis held that the president of the Association was authorized to appoint the committee.

The program for the next annual meeting was discussed in a general way and several subjects for same were agreed upon.

The president later informed the secretary that he had appointed the Committee on Amendments to the National Food and Drug Law as follows:

Geo. L. Flanders, New York.
W. M. Allen, North Carolina.
H. E. Barnard, Indiana.
J. D. Mickle, Oregon.
W. B. Barney, Iowa.

When the officials of Maine were notified that July 13-17 inclusive had been set as the date for the next annual meeting of the Association, they replied that it would be impossible for the Association to get accommodations at Mt. Kineo that late in the season, and to get accommodations that it would be necessary to meet not later than early in June. Dr. Woods took the matter of the Association meeting in Portland up with the Portland Board of Trade, and found them enthusiastic on the subject. He then wrote the secretary, suggesting as accommodations could not be had at Mt. Kineo later than early June, that the Executive Committee change the place of meeting from Mt. Kineo to Portland, Maine. Late in May and early June being the time of many college commencements and annual board meetings, which would prevent members being away at that time, and the Executive Committee feeling that it is the sense of the Association that the meetings should be held in the summer when members are probably less busy than at other times, the committee decided that it would be best, under the circumstances, to change the place of meeting from Mt. Kineo to Portland, Maine.

Complying with the requirements of the Constitution, the

secretary not less than ninety days previous to the meeting, sent notice of the meeting to the members of the Association.

The president prepared the program for the meetings of the general Association, and the programs for the sections were prepared by the chairman and secretaries of the respective sections, and all were submitted to the Executive Committee for approval. Not less than ninety days previous to the meeting the program was printed and sent to the members of the Association.

In preparing the program the president thought it advisable for the Association to hear addresses from manufacturers. He took the matter up with a number of the members of the Association and informed the executive committee that the idea of hearing addresses of manufacturers on one day during the meeting met with the approval of the members conferred with. The committee, therefore, approved of the program being arranged for the Association to hear addresses by manufacturers on Friday, the 17th.

The executive committee authorized the secretary to engage the services of a competent reporter to take the proceedings of the meeting, which has been done.

The annual membership dues to the Association are supposed to be due and payable at the meeting of each year, and the Constitution provides that a state or department more than one year in arrears of dues is not entitled to vote in the meetings.

The dues for 1914 become due at this meeting, and to take care of the expense of taxing proceedings and some other matters we would be glad to receive dues when convenient before the close of the meeting.

Respectfully submitted,

(Signed) JAS. N. WALLIS, *Chairman*,
(Signed) H. E. BARNARD,
(Signed) W. B. BARNEY,
(Signed) JOEL G. WINKJER, *Secretary*,
Executive Committee.

President Wallis: You have heard the report of the secretary and of the Executive Committee. Those who are in favor of adopting the report say "Aye"; those opposed "No." The ayes have it and the motion to adopt the report is carried.

The next order of business is the report of the treasurer. The secretary will make a statement about that.

Secy. W. M. Allen of N. Car.: Mr. H. F. Potter was "treasurer" of the Association, but he is no longer connected with the food department of "Connecticut," which renders him no longer a member of the Association, and therefore he could no longer be treasurer of the Association. He wrote me that he would send the report of the treasurer to me and I suggested that he forward it to me here. As yet I have not received it. But I don't doubt that I will, and as soon as I receive it I will present it to the Association, but I would like to pass over it for the present.

REPORT OF TREASURER.

Portland, Maine, July 14, 1914.

To the Officers and Members of the Association of American Dairy, Food and Drug Officials:

Gentlemen: I beg to submit the following report as Treasurer of this association from June 17, 1913, to July 14, 1914:

RECEIPTS.

Balance June 17, 1913.....\$111.14
Aug. 8, 1913, from Secretary Allen, dues as follows for 1911:.....
Ohio\$ 10.00
Georgia 10.00
For 1912—
Indiana 10.00
Illinois 10.00
Kansas 10.00
New York 10.00
Ohio 10.00
Pennsylvania 10.00

Texas	10.00
California	10.00
U. S. Dept. of Agriculture.....	10.00
Georgia	10.00
Sept., 1913, check from W. M. Allen (copy of report of Mobile meeting furnished H. B. Meyers & Co.).....	144.50
March 5, 1914, dues for 1913—	
South Dakota	10.00
Idaho	10.00
Maryland	10.00
Vermont	10.00
Minnesota	10.00
Louisiana	10.00
Florida	10.00
Iowa	10.00
Maine	10.00
Michigan	10.00
Missouri	10.00
Texas	10.00
Kentucky	10.00
New Hampshire	10.00
Nevada	10.00
North Dakota	10.00
Kansas	10.00
North Carolina	10.00
Reports for 1913	8.00
July 11, 1914, dues for 1913—	
Pennsylvania	10.00
South Carolina	10.00
Rhode Island	10.00
Tennessee	10.00
Mississippi	10.00
Illinois	10.00
Virginia	10.00
California	10.00
For proceedings	6.00
Total receipts	\$649.64

EXPENDITURES.

Voucher No. 5. July 11, 1913. Paid E. M. Uzzer & Co. (printing programs, circular let- ters, letter heads, envelopes and express on on same for 1912).....	\$ 46.91
Voucher No. 6. Sept. 30, 1913. Paid Goodman & Carlin for reporting and transcribing notes of Mobile, Ala., meeting.....	144.50
Voucher No. 7. Sept. 30, 1913. Paid E. M. Uz- zer & Co. for printing programs and secre- tary's supplies	22.00
Voucher No. 8. March 13, 1914. Paid Ameri- can Food Journal, H. B. Meyers, prest. for 210 copies of the Proceedings of the 17th an- nual session	200.00
Voucher No. 9. March 13, 1914. Paid W. M. Allen, secretary, for postage and office sup- plies	16.00
Total expenditures	\$429.41

RECAPITULATION.

Total receipts	\$649.64
Total expenditures	429.41

July 14, 1914, balance in treasury.....\$220.23

Respectfully submitted.
(Signed) H. F. POTTER,
Treasurer.

Audited and found correct:
(Signed) H. HOWARD.
J. R. CHITTICK.
GEO. B. TAYLER.

President Wallis: That order of business will be
passed for the present. The next number on the pro-
gram is the report of the Executive Committee. We
have just had that. It was incorporated in the report
of the secretary. The next number is the report of
the committee on co-operation by Dr. S. J. Crumline
of Kansas.

THE REPORT OF THE COMMITTEE ON CO-OP-
ERATION.

(Submitted at the Eighteenth Annual Convention of
the Association of American Dairy, Food and
Drug Officials, Portland, Me., July 13-18, 1914.)

Gentlemen: The work of the Committee on Co-op-
eration has made rapid strides since our last annual
meeting in carrying into practical effect the plans of
the committee for the establishment of a working
basis for real and vital co-operation between the Fed-
eral government and the states and between the states
themselves.

This was made possible through the far-sighted ac-
tion of the present Chief of the Bureau of Chemistry,
Dr. C. L. Alsberg, who called a conference of the food,
dairy and drug officials to meet with him in the city
of Washington on November 14th and 15th, 1913. At
this conference 128 people were registered, represent-
ing a majority of the states of the union, together
with a large representation from the Bureau of Chem-
istry.

The entire question of co-operation was fairly and
exhaustively discussed during those two days, and the
sense of the delegates concerning the several important
matters comprehended in co-operative procedure fully
obtained.

After mature deliberation, the Committee on Co-
operation presented the following resolutions which
upon notice were unanimously adopted:

RESOLUTIONS.

Your committee offers, as a preliminary report, the
following amendments to the recommendations as pub-
lished in the Manual of Procedure under date of May
22, 1913:

RESOLVED, That Section 3 be amended by adding to
the second paragraph the following words "and di-
recting the attention of each official to such violations
as have originated in his state" so that the paragraph,
as amended, will read:

"We recommend that the Secretary of Agriculture
be requested to send out to all collaborating officials
such information concerning matters of general inter-
est affecting the enforcement of the National Food and
Drugs Act as may be of assistance to the collaborating
officials in the performance of their duties and direct-
ing the attention of each official to such violations as
have originated in his state."

RESOLVED, That an office be established in the
United States Department of Agriculture to serve as a
clearing house and to carry into practical effect the
spirit of co-operation as expressed in the previous re-
ports of the Committee on Co-operation.

RESOLVED, That, in those states where the laws will
permit, United States inspectors be authorized on re-
quest of collaborating state officials to collect for them
samples of articles sold in intrastate commerce which
appear to be in violation of the laws of the state in

which they are found, the cost of such samples to be paid by the states for which the samples are collected.

The procedure outlined in the previous reports of the Committee on Co-operation as respects criminal cases is intended to apply to criminal prosecution which the commission's state official desires to have instituted outside of his own state.

RESOLVED, That whenever commissioned state officials discover violations of the Food and Drugs Act which can be prosecuted criminally in the Federal courts within their own states, that the commission state official make his report direct to the United States attorney and at the same time furnish a copy of the report to the chief of the Bureau of Chemistry.

Agreeable to the adoption of the committee's report, the Bureau of Chemistry proceeded to put into practical effect the wishes of the conference as expressed in the adopted resolutions, and the Honorable J. S. Abbott, former Dairy and Food Commissioner of Texas, was appointed to take charge of the co-operative work in the Bureau of Chemistry under the title "Chemist in Charge of State Co-operative Food and Drug Control," and thus the machinery has been supplied for carrying out the will of the association.

Later a complete revised report of the Committee on Co-operation was sent out to all food, dairy and drug officials, which is herewith appended and made a part of the committee's report:

UNITED STATES DEPARTMENT OF AGRICULTURE, OFFICE OF THE SECRETARY.

Report on Co-operation and Manual of Procedure for the Guidance of Commissioned State Officials, Collaborating State Chemists and Officials of the United States Department of Agriculture in Connection With Co-operative Work in the Enforcement of the Food and Drugs Act of June 30, 1906, as Revised and Adopted at the Conference of State and National Food, Dairy and Drug Officials, Washington, D. C., November 14 and 15, 1913.

This report supersedes that issued by the office of the Secretary, U. S. Department of Agriculture, May 22, 1913.

On November 15, 1913, the Committee on Co-operation, consisting of Messrs. S. J. Crumbine, Chairman, J. S. Abbott, C. L. Alsberg and A. S. Mitchell, submitted to the conference of State and National Food, Dairy and Drug Officials, certain amendments to its previous report. The complete report of the committee, as amended and finally adopted on November 15, is given below.

1. We recommend that the Secretary of Agriculture be requested to cause instructions to be issued to all food and drug inspectors operating under the National Food and Drugs Act to the effect that whenever violations of the State Food and Drugs Acts come under their observation they shall report the same to the commissioner or collaborating official in that state. It is further recommended that, in those states where the laws will permit, United States inspectors be authorized on request of collaborating state officials to collect for them samples of articles sold in intrastate commerce which appear to be in violation of the laws of the state in which they are found, the cost of such samples to be paid by the states for which the samples are collected. It is further recommended that all collaborating state officials in the several states be requested to transmit immediately to the Secretary of Agriculture information as to violations of the Na-

tional law or information which may lead to the discovery of such violations, where such official may for any reason be unable to handle such case satisfactorily or expeditiously.

2. Whereas Regulation 4 of Circular No. 21 prescribes that: Unless otherwise directed by the Secretary of Agriculture, the methods of analysis employed shall be those prescribed by the Association of Official Agricultural Chemists and the United States Pharmacopœia, your committee on co-operation requests that all collaborating chemists be supplied by the Secretary of Agriculture with the methods on analysis employed in the Bureau of Chemistry in the examination of foods and drugs, where methods have received the approval of the Secretary of Agriculture, and are not those methods prescribed by the A. O. A. C. and the United States Pharmacopœia.

We recommend that the Secretary of Agriculture be requested to send out to all collaborating officials such information concerning matters of general interest affecting the enforcement of the National Food and Drugs act as may be of assistance to the collaborating officials in the performance of their duties and directing the attention of each official to such violations as have originated in his state.

It is further recommended that the collaborating officials be requested to send to the Secretary of Agriculture and to other collaborators in the several states, all new information of value and general interest pertaining to their official work and investigations.

3. We recommend that the Secretary of Agriculture invite the various collaborating state officials to correspond with his department in all matters requiring information or advice, and urge upon them the desirability of interchanging ideas and information upon all matters pertaining to the enforcement of the National Food and Drugs act.

4. We recommend that where perishable food or drug products have entered into interstate commerce and are found or believed to be unfit for food or drug purposes, and there is a reasonable doubt as to the condition of such product at the time of shipment or manufacture, full information concerning the case be referred to the state official in whose state the shipment originated as soon as the first steps looking to the condemnation of such product have been taken. This state official should immediately investigate the source of such product and the sanitary conditions under which it is manufactured or produced, and immediately submit all information obtained in said investigation to the state or federal official referring the case.

5. It is suggested by this committee that if any collaborating state official can place his inspection force at the service of the Secretary of Agriculture to aid in the enforcement of the National Food and Drugs Act, this service be proffered for such use as the occasion may demand.

6. Whereas many of the states which have efficient food laws and food control do not have laws preventing adulteration of drugs or controlling the great evil of drug substitution; Therefore,

We recommend that this association pledge to the food commissioners in states which do not have efficient drug laws its support and assistance in their effort to secure proper drug legislation.

And whereas we believe that concerted action will advance drug control throughout the country and render the sale of fraudulent and fake medicinal prep-

arations increasingly difficult, if not impossible, we recommend further,

That commissioners be urged to prepare circulars of confidential information concerning illegal drugs and medicinal preparations and send them to other state drug control officials and to the federal authorities.

7. Whereas the collaboration of Federal and State chemists has resulted to the mutual advantage of all concerned by bringing about greater efficiency, together with uniformity of methods; and whereas, since the bacteriological and microscopical examination of food and drugs is coming to be of increasingly great importance in the detection of certain forms of adulteration and decomposition: We, therefore, recommend collaboration between state and federal bacteriologists and microscopists as being desirable for the same reasons that have made such collaboration of chemists both desirable and necessary.

8. Whereas in consideration of the vital importance and necessity for co-operation between the National and State food and drug control officials as herein set forth, we unanimously recommend to this association that a permanent standing committee on co-operation be appointed by the president of the association, such committee to consist of five members and its duties to be to endeavor to secure co-operation in the enforcement of the National Food and Drugs Act and the food and drugs acts of the several states, to aid in advancing co-operation between the Federal and State food and drug control officials, and to promote co-operation among the state officials of the several states.

It is further recommended that the terms of office of the members of said committee be respectively one, two, three, four, and five years; that subsequently the terms of office of each shall be for five years; and that the president of this association shall fill any vacancy in said committee, caused by death, resignation, or otherwise, for the unexpired term.

It is further recommended that the Secretary of Agriculture be requested to appoint one or more persons connected with the United States Department of Agriculture to meet and act with said committee on co-operation at all its meetings and to represent the said department in the deliberations of said committee.

It is further recommended that said committee be required to report at the annual meetings of this association the results of its efforts to accomplish such co-operation; and that said committee be empowered to take such steps as seem desirable in promoting such co-operation.

It is further recommended that an office be established in the United States Department of Agriculture to serve as a clearing house and to carry into practical effect the spirit of co-operation as expressed in the previous reports of the committee on co-operation.

9. Complete and full instructions have been sent to the collaborating officials in connection with their duties in the administration of the National food law. It has appeared, however, that certain of the directions as sent have not been sufficiently explanatory, and in order to make these points clearer to the collaborating officials it has seemed to the committee desirable to discuss more fully some of these steps.

The collaborators are referred to the manual of instructions issued by the Department of Agriculture, wherein general information on this subject is given.

Three things are necessary to successful prosecution of a shipper of adulterated or misbranded foods or drugs under section 2 of the Federal law:

1. The article sampled must have been shipped in interstate commerce.

2. The sample must be received by the analyst in the identical condition in which it was shipped from another state. (Sample must be an "unbroken package," or, where this is not practicable, as, in bulk goods, the sample must be from an "unbroken package").

3. The article sampled must have been adulterated or misbranded at the time it was shipped from another state.

The gist of the offense is the shipment, that is, in general, the delivery within a state of an article of food or drug to a carrier for transportation into another state. The contents of the sample must be in the exact condition in which they were shipped, in order that the analyst or examiner may be able to testify to the composition of the article at the time it was shipped.

The regulations adopted by the three secretaries wisely provide that only those state officials holding commissions from the Secretary of Agriculture, and their agents, shall collect samples on which to base prosecutions under the law. The commissions issued by the secretary must be carefully preserved so that they may be produced, if necessary, to show that samples were regularly collected. The commissioned state officials should issue similar commissions to their agents, which likewise must be preserved. What products shall be sampled rests in the discretion of the commissioned state officials, subject to such requests as the Secretary of Agriculture may make from time to time. The commissioned state officials shall instruct his agents what samples to collect, and only those samples can be used which are collected by agents within the authority conferred on them by the commissioned state official.

A commissioned state official, or his agent, when collecting a sample within his state which has been received from another State, Territory, or the District of Columbia, should keep in mind and use the forms provided by the Secretary of Agriculture. For example, if Mr. Roberts, or his agent, finds in the state of Maine adulterated foods shipped into the state from Illinois, he should procure a sample and take the dealer's receipt therefor. This receipt should contain the information required on the Department of Agriculture form "Dealer's receipt," and is valuable for the purpose of identifying the samples with an interstate shipment. At least three packages should be procured, when practicable, and in bulk goods enough to subdivide into three parts. He should obtain from the dealer records (invoices, etc.) showing the sale of the shipment of which the sample is a part, and transportation records (waybills, freight receipts, etc.) covering the transportation of the shipment from Illinois to Maine. The dealer's receipt should be signed by a person who can identify the sample with the records of sale and transportation and who can testify that the sample delivered to the inspector was in the same condition as when received by the dealer. The records of sale and transportation may be originals or copies. Originals are preferable, but all records obtained should be initialed by the dealer so that he may identify them later. The samples should be sealed and

marked by the collector, preferably using Department of Agriculture seals and marks. Other seals and marks which are sufficient to enable the inspector and the analyst to identify the samples and to testify that their contents were in the same condition when opened for analysis as at the time of purchase may be used. He should also prepare a report of collection, using Department of Agriculture "Inspector's description of sample book" and "Inspector's report of collection."

The reports should be delivered to Mr. Roberts with all the samples except one, which should be turned over to Mr. Bartlett, the chemist in Maine appointed by the Secretary of Agriculture as collaborating chemist in the Bureau of Chemistry. Mr. Bartlett should examine the sample promptly and report the results to Mr. Roberts, using the Department of Agriculture analytical sheet and chemist's report. Mr. Roberts should keep a record of the sample on Department of Agriculture sample index card. If, in his opinion, Bartlett's report shows the sample to be adulterated or misbranded, Roberts should send to Matthews in Illinois reports of the inspector and analyst, and one of the samples, and ask him to cite shipper for hearing. Roberts should notify the Secretary of Agriculture of his action. Matthews should cite the shipper for hearing at once, fixing a reasonable time, and, if requested, should turn sample over to the shipper. Under regulation six hearings are private and confined to questions of fact. The Department of Agriculture form "Appointment for hearing" should be used and sent by registered mail. The return receipt card should be filed in the records of the case to show delivery of the notice. Everything which transpires at the hearing should be taken down by a stenographer and a transcript made. If it is impracticable to furnish a verbatim report of the hearing, the commissioned state official should dictate a summary of the hearing and have it transcribed immediately after the close of the hearing. The hearing should be conducted in accordance with regulation 5. For further information with respect to hearings the commissioned state official should consult Department of Agriculture Manual of Instructions, page 46. After the hearing Matthews should send all the records received from Roberts to the Secretary of Agriculture, together with the reports of the hearing. If it develops, however, that the shipper holds a guarantee under section 9 of the law and the guarantor resides in Illinois, Matthews should cite the guarantor for hearing also before him, and report both hearings to the Secretary of Agriculture. Before the guarantor is appointed a hearing, complete information should be obtained from the shipper in the way of records of sale and shipment, identifying the sample in question with a shipment received from the guarantor. The form entitled "Supplementary statement relative to I. S. No. —" should be completed by the shipper. Matthews should notify Roberts when the hearings have been held and also when he has referred the case to the Secretary of Agriculture.

On receipt of the records by the Secretary of Agriculture they will be transmitted to the Bureau of Chemistry for consideration as to whether prosecution shall be recommended. After decision by the department for prosecution the solicitor will prepare the case for report to the Department of Justice. Roberts and Matthews will be notified of the decision of the Bureau in prosecuted cases. Roberts will be called upon

for a sample to be examined by the collaborating chemist in Illinois to check Bartlett's results and also to make available to the United States attorney in Illinois, where the case will be tried, an analyst with whom he may confer in the preparation of the case. The results of the check analysis will be reported by Matthews to Roberts and to the Secretary of Agriculture. In cases where no check analysis is deemed necessary for the successful prosecution of the case the bureau will notify Roberts and Matthews accordingly. Both Roberts and Matthews should notify the Secretary of Agriculture of any pertinent facts in the case which may come to their notice at any time prior to its termination in court.

Suppose, on the other hand, that Mr. Matthews finds that manufacturers or jobbers in Illinois are shipping adulterated or misbranded foods and drugs into the state of Maine in violation of the Federal law. He should instruct his inspectors to obtain information through the transportation companies, of the dates of shipment and the names of consignees, and make a report to Mr. Roberts giving him the details with regard to the shipment together with his reasons for believing that the articles shipped are adulterated or misbranded. With this report before him, Mr. Roberts will be enabled to make a prompt collection of a sample, have it examined and proceed to prepare a case for prosecution against the shippers, as above outlined.

Or, if, in his opinion, the circumstances warrant such action, Mr. Roberts may ask the United States attorney for the district of Maine to make a seizure of the shipment. Prompt action is necessary to effect seizures of foods and drugs. Adulterated and misbranded foods are liable to seizure under the law as long as they remain in the original unbroken packages—that is to say, generally speaking, packages in which they are shipped in interstate commerce. Under a recent decision of the Supreme Court it is immaterial whether adulterated or misbranded goods have been transferred out of the possession of the original consignee within the state. Proof is necessary, however, to show that the goods either are in the course of transportation from one state, territory, or district to another or have been so transported, or have been sold or offered for sale in the District of Columbia or the territories or imported from a foreign country for sale, or intended for export to a foreign country. In presenting proposed seizures to the United States attorney, Mr. Roberts, therefore, should furnish him with evidence in the form of freight bills, waybills, express receipts, invoices, etc., when they are available, showing that the particular lot of goods have been transported in interstate commerce. If the inspectors themselves witness the transportation of goods, a statement to that effect to the United States attorney will take the place of records of interstate transportation. If Mr. Matthews has furnished Mr. Roberts with an analysis of a sample taken from the shipment or from other shipments of the same goods made on or about the same time, and this analysis shows that the goods are adulterated and misbranded, the United States attorney may be asked to seize the goods on the strength of this analysis. It is preferable, however, if there is time, that a sample should be obtained from the shipment after its arrival in the state of Maine and there analyzed. The reason for this is that to obtain a decree of condemnation or forfeiture it is

necessary to show that goods are adulterated or misbranded at the time seizure is made. In the case of perishable goods it is necessary that an examination should be made of samples on their arrival within the state, and it may very well happen that goods which were not adulterated at the time they left the state of Illinois may be adulterated when they arrive within the state of Maine. It is possible also that goods shipped from Illinois may be relabeled or branded after their arrival in the state of Maine, so that, although misbranded at the time of shipment, they may not be misbranded in the hands of the consignee. Mr. Roberts should advise the Secretary of Agriculture and Mr. Matthews promptly of any action he may take with respect to asking United States attorneys to make seizures of adulterated foods shipped from Illinois. The report should be in detail, showing the facts of interstate transportation, the analytical results, particulars in which the goods are alleged to be adulterated and misbranded, and the action taken by the United States attorney. If the United States attorney accepts his recommendation, Mr. Roberts should obtain and send to the Secretary of Agriculture a copy of the libel filed and should keep him advised of the progress of the suit. Mr. Roberts should ask the United States attorney to obtain authority from the court for him to take samples of the seized goods for analysis; a sufficient number of samples should be procured to be representative of the shipment. These samples should be sealed, marked, and analyzed as soon as possible after they are obtained. Mr. Roberts should advise the Secretary of Agriculture of the number of samples obtained and whether he desires to have any of the samples examined by chemists outside the state of Maine. In contested cases it is frequently important to have examinations of samples made by different analysts, and it will generally be found expedient to have the analysis made by the collaborating chemists in Maine supplemented by analyses made either by the Bureau of Chemistry or by collaborating chemists in other states.

The procedure outlined in the previous reports of the committee on co-operation as respects criminal prosecutions which the commissioned state official deposes (Section 9) is intended to apply to criminal cases to have instituted outside of his own state. Resolved, That whenever a commissioned state official discovers a violation of the food and drugs act which can be prosecuted criminally in the Federal court within his own state, the commissioned state official make his report direct to the United States attorney and at the same time furnish a copy of the report to the chief of the Bureau of Chemistry.

It is the belief of the committee that now that the wishes of the conference have been complied with and the machinery provided and manned for successful operation, that the entire matter of co-operation now rests with the commissioners of the various states, and the committee expresses the hope that its labors may not have been in vain, but that from this time forward each commissioner may enter into the work as well the spirit of co-operation to the end that the scope and purposes of the various food, dairy and drug laws, both national and state, shall be effectively and fairly enforced.

C. L. ALSBERG,
J. S. ABBOTT.
S. J. CRUMBINE, M. D.,
Chairman.

President Wallis: The next order of business is the report of the committee on Bacteriological Standards, by Dr. J. S. Abbott. (Applause.)

Dr. J. S. Abbott: Mr. President, this committee made a tentative report at Mobile, Alabama, last year and the committee was instructed to continue its investigations on the bacterial content of milk. One or two of the members of the committee have resigned—one at least has. I have not been able to get in touch with the other members and I will have to apologize now for not having a definite and specific report to submit just at this hour.

If I can get those members of the committee together during the convention some time and if it would be in order to submit this report a little later on, I will endeavor to do so.

I would like to suggest, however, that this developed to be a very much larger problem than we first conceived it to be, and I would like also to suggest that this committee be dissolved, the present membership of the committee, I mean, and a committee on bacteriological standards reappointed and reorganized and that some further work be done.

We have considerable trouble in making these standards for the reason that the interpretation of the bacteriological analyses seems to be a very difficult thing in the present light of our knowledge on the subject, particularly in regard to the product milk, which is the question we had under consideration chiefly.

I will endeavor to get this committee together during the sessions of this convention and try to make a report later on.

President Wallis: The matter of appointing a new committee will be with the next president of the Association, Dr. Abbott.

Now we will have the reports of special committees. The first is the report of the Joint Committee on Food Standards, by Dr. C. L. Alsberg of the Bureau of Chemistry, Department of Agriculture.

Dr. C. L. Alsberg: As it is so soon after the formation of the Standards Committee, we did not feel that it would be necessary or, indeed, wise at this time to put in a formal report.

The Standards Committee has met and has spent a good deal of time on the work. The committee has had a number of sessions, has organized, has parcelled out the subjects for investigation to the members of the committee, and has laid down principles on which the committee is to work.

The committee has as yet not adopted any standards to submit to this Association or to the other associations that are represented on the committee.

The preparation of any single one standard, I need not tell an association such as this, is often a very difficult matter. Many parties must be heard from and many things taken into the most careful consideration before a final report can be made, so that at this time we are only in the position to report progress.

President Wallis: The report of the Joint Committee on Food Standards will be adopted.

The next report will be the report of the Committee on Amendments to National Law, by the Honorable George L. Flanders of New York.

Hon. Geo. L. Flanders: When I first saw this program I thought there had been an error on the part of the person printing it. I am down on the program to read a report of a special committee on "Amendments to the National Law" and I supposed

when the secretary read his report he would see the error. I went to see Dr. Barnard and asked him about it and he said it was the first time he had heard of it. But, anyway, I think there must have been an error somewhere and we are not prepared to make a report on that subject. I have a report on the special committee "Memorializing Congress on Standards," but on this matter at this point in the program I will have to report lack of progress and ask for instructions.

Dr. Wm. Frear of Penna.: I move that the committee be continued and, if it be found practicable to do so, that the report be submitted at some subsequent session of this present convention.

Motion seconded.

President Wallis: You have heard the motion made by Dr. Frear of Pennsylvania. Those in favor of it say "Aye," those opposed "No." The "Ayes" have it, and it is so ordered.

The next number is a report on Substandardization of Drugs and Tolerance Limits in Drug Adulteration, by Dr. Charles Caspari, Jr., of Maryland.

Secy. W. M. Allen of N. Car.: I have a letter from Dr. Caspari and he has sent me his report because he is unable to reach the city in time to read it himself, but he expects to be in Portland before the close of the convention, and I would suggest that we pass over that until he arrives.

Motion seconded.

President Wallis: If there is no objection we will pass over that to the next order of business.

The next thing on the program is the report of the special committee "Memorializing Congress on Standards," by Hon. George L. Flanders.

To the Honorable President of the United States, and to Members of Congress:

The undersigned committee, duly appointed by the Honorable James H. Wallis, President of the American Association of Food, Dairy and Drug Officials, pursuant to a resolution passed by that association at its 17th annual convention at Mobile, Ala., June 16th-20th, 1913, of which the following is a copy:

"Resolved, That this Association memorialize Congress and the President of the United States that in our opinion an amendment of the Food and Drugs Act, providing that power to make standards for food products, which standards should be recognized by the courts as prima facie evidence of what is the true standard for a food product, should be delegated to the United States Department of Agriculture, which department should also be empowered to co-operate with this Association in securing the data and facts necessary for the formulation of such standards."

do hereby respectfully recommend that in the name of the American Association of Food, Dairy and Drug Officials, in pursuance of the above regulation, that Congress be requested to pass a law empowering the Secretary of Agriculture to fix, make and promulgate standards for foods and drugs entering into traffic that is interstate, international or with the Indian tribes or that is wholly within a territory of the United States or the District of Columbia, or that is between any State of the United States and the District of Columbia, or between any such State and any territory of the United States; that the power so conferred upon the Secretary of Agriculture shall be for the purpose of determining the purity or strength of such food or drug, and for the purpose of determining whether it may be sold under a given name or

designation, and such standards when so made, fixed and promulgated, shall be construed as determining the fact of whether the particular food or drug is an adulterated product within the meaning of the statute, and that such law shall provide that all such standards when duly made and promulgated by the Secretary of Agriculture shall be deemed by the court in any case or prosecution under the Food and Drugs Act to be presumptively correct as standards, and that if the particular food or drug product under consideration does not meet the requirements of the standard or falls below such standard, that the court shall deem such evidence presumptive of the fact that such goods are adulterated or misbranded, as the case may be, within the meaning of the Food and Drugs Act, and that such evidence when properly placed before the court shall constitute a prima facie case of a violation of the Food and Drugs Act.

Reno, Nevada, Dec. 17, 1913.

I approve of the above resolution.

Sanford C. Dinsmore,
Jos. W. Helme,
E. F. Ladd,
G. L. Flanders.

Hon. Geo. L. Flanders: Now that report is signed by every member of the committee except Dr. Charles B. Woods. The report was submitted to him but he wrote back that he was no longer on the committee. I didn't understand what he meant by that statement, but later on I learned that he was not enforcing the food law for Maine any more and was therefore no longer even a member of this Association, and therefore I concluded that that was what he meant by the statement that he was not on this committee.

President Wallis: The report of this committee is before the convention for your action. This is a very important matter, gentlemen, and we ought to consider it carefully before it is adopted.

Mr. H. C. Lythgoe of Mass.: I move it be adopted.

President Wallis: Is that seconded?

Dr. Wm. Frear of Pennsylvania: I notice that we have a discussion on this subject of general standards for the first order of business tomorrow morning. It occurred to me that possibly, owing to the very large importance of this subject, it might be desirable to postpone the adoption of this report until after that discussion in the morning. I have, personally, no criticism to make of the report of this committee, but it simply occurred to me that it might be better to make it a special order of business to follow the first paper tomorrow morning. I simply raise the question.

President Wallis: A motion was made to adopt the report, but not seconded.

Mr. H. C. Lythgoe: That is right. That was the reason I made the motion—just to get the subject before the convention for discussion.

President Wallis: Yes, I so understand. The matter is now before the convention, gentlemen—the motion to make this report a special order of business for tomorrow morning, to follow the discussion of the paper by Dr. Alsberg on the same subject. Or was it a motion, Dr. Frear? Wasn't that just a suggestion?

Dr. Frear: I now make the motion that action upon this matter be made the subject of a special order after the first paper tomorrow morning—that is, after the discussion to follow the reading of that paper, and that the motion be laid upon the table until that time.

President Wallis: Are you ready for this question?

Mr. R. M. Allen of Kentucky: Question.

President Wallis: The motion is that this report just read by Mr. Flanders lay on the table until a special order of business tomorrow morning.

Motion seconded.

President Wallis: All in favor of the motion as stated say "Aye," opposed "No." The ayes have it, and it is so ordered.

In explanation of the next order of business I desire to state that a committee was appointed to attend the National Dairy Show at Chicago last October, as representing this Association, because this is an association of dairy, food and drug officials, and Dr. Barnard of Indiana will now make the report.

REPORT OF THE COMMITTEE APPOINTED TO ATTEND THE EIGHTH NATIONAL DAIRY SHOW.

The National Dairy Show has been promoted and fostered largely for the purpose of improving the breed of dairy cattle, but the last few shows have been more than displays of fancy stock, and the Eighth National Dairy Show was an education in modern dairy practice.

All who visited the show were impressed with the growth and increasing importance of the milk producing industry, and especially with the fact that the scientific principles of sanitary milk production are no longer avoided by dairymen but are sought, not because it is necessary to produce clean milk and pure butter in order that it may legally be sold, but because it is good business, and indeed because the greatest development of the business can only come when the confidence of the consumer in the quality of the output is absolutely assured.

The Eighth National Dairy Show had many interesting features. Special days were devoted to each of the dairy breeds. The showing of Guernseys was greater than of any other breed; then followed the Jerseys, Ayreshires, Holsteins, Brown Swiss and Dutch Belted. One of the most instructive features of the show was the exhibit made by the dairy division of the Federal Department of Agriculture, where the department demonstrated the necessity for knowing the earning capacity of each individual in the herd.

Food officials who were present, and many of our members were there, could not fail to be impressed with the exhibits of milk machinery and to note the fact that the leading manufacturers are striving to out do each other in the development of sanitary appliances.

The ice cream manufacturers of the country met during the show, as did also the National Creamery and Butter Makers' Association. All of these organizations were largely attended and did much for the improvement of their business and a better pure food control. The International Milk Dealers' Association, for instance, expressed itself in its resolutions as an organization of milk dealers who have shown and are showing in a tangible way that they are working for the continuous improvement of municipal milk supplies as regards wholesomeness, safety and food value, and that they are in hearty sympathy with all efforts to this end. This association endorsed the report of the committee on milk standards of the New York Milk Commission.

Perhaps the most important conference at the show was the round table conference which brought together about seventy representatives of the various associa-

tions in attendance at the show. Prof. H. E. Van Norman, dean of the College of Agriculture of the University of California and president of the National Dairy Show Association, pointed out the immense value to be gained by bringing together the many organizations in one active working body. W. E. Skinner, manager of the National Dairy Show Association, made it clear that an organization of all dairy interests would be helpful in settling the difficulties of the milk producer, the ice cream manufacturer, the creamery operator and the cheese man. A constitution was adopted and it is probable that at the show to be held this fall the round table conference will have an important part in the proceedings.

I believe it highly important that food officials, especially those who are enforcing dairy laws, should make it a point to attend the National Dairy Show, in order that they may get a larger view of their work, a better understanding of the problems of the milk producer and handler and a better appreciation of the great efforts that are being made within the industry to lift it to a higher plane.

President Wallis: You have heard the report of this committee. A motion to adopt the report will be in order.

Mr. R. M. Allen of Kentucky: I move it be adopted.

Motion seconded.

President Wallis: A motion has been made and seconded to adopt the report of the committee appointed to attend the Eighth National Dairy Show. Those in favor of the motion vote "Aye," those opposed "No." The ayes have it, and the report is adopted.

The next number on our program is the report of the committee appointed, upon request, to attend the Drug, Chemical and Food Exposition held in New York. The appointment was made of Dr. R. B. FitzRandolph of New Jersey; Dr. Chas. Caspari, Jr., of Maryland, and Mr. F. H. Fricke, of Missouri. Dr. R. B. FitzRandolph, who was to have presented that report, is not present, but I trust we may have that report some time during these sessions of the convention.

The next order of business is the appointment of committees.

First, I want to ask that any gentleman who has a resolution to submit will hand it in to the chairman of that committee, Dr. Ladd, so that the committee will have all the time possible to consider them. The credentials committee will consist of Messrs. J. G. Winkjer, F. A. Jackson and H. C. Smith. The Auditing Committee will consist of Messrs. H. E. Barnard, F. H. Fricke, and Geo. B. Taylor. The Resolutions Committee will consist of Messrs. Ladd, Crumbine, Newman and Barney.

Credentials—Winkjer, Smith, Jackson.

Auditing—Barnard, Fricke, Taylor.

Resolutions—Ladd, Crumbine, Newman, Barney.

Now, I want to state before we adjourn for today that several have been to me with the request if possible to work in some of the papers through the week so that final adjournment could be made on Friday night, but I think that is a matter which should be left to the Executive Committee, and if there is no objection the Executive Committee will take this matter into consideration and make a report to the convention as to whether they think this should be done.

I understand Dr. W. D. Bigelow wants the floor for a few moments this afternoon.

Dr. W. D. Bigelow: I would like to make an announcement in behalf of gentlemen who expected to make it this afternoon but who are not here.

There are a few of the men in this state most largely interested in the manufacture of foods who wish to make the acquaintance of the members of this Association and extend some courtesies here and they are planning a shore dinner for you tomorrow evening, for the delegates to the convention and their families who are in attendance. Mr. Baxter intended to give the invitation this afternoon, but he is not here and I wish to ask you not to make any engagement for tomorrow evening which will prevent you from accepting that invitation that I know he intends to extend—a shore dinner at 5:30 tomorrow evening. Meanwhile, as the matter requires a little preparation and arrangement, he is anxious to know how many will be there. If you have not registered with Dr. Taylor or the members of your families have not registered, I hope you will do so this afternoon—and if any come in later we would like to know about it in the morning. (Applause.)

President Wallis: Commissioner Barney of Iowa has the floor.

Com. W. B. Barney: I was going to suggest that it might be well to call a meeting of the Executive Committee.

President Wallis: Yes; those who compose the Executive Committee had better meet at the conclusion of this session for a few minutes to discuss the matters before it.

I think if we are going to this shore dinner tomorrow evening it would be proper for the convention to take some action to accept the invitation which has been extended it. There has been nothing done so far in that direction.

Mr. F. A. Jackson, Rhode Island: I move we accept the invitation.

Motion seconded.

President Wallis: The motion before the convention is that we accept the kind invitation extended to the members to take this trip and enjoy this dinner. It would be proper for everyone entitled to go on this outing to register so that those inviting us may know how many to provide for. If there is no objection that motion is adopted. A motion to adjourn is now in order.

Mr. F. A. Jackson, of Rhode Island: I move we adjourn.

Motion seconded.

President Wallis: It has been moved and seconded that we adjourn until tomorrow morning at 9 o'clock. Those in favor say "Aye," those opposed "No." The ayes have it, and we stand adjourned until 9 o'clock tomorrow morning.

Adjourned until 9 a. m. July 14th.

TUESDAY, JULY 14, 9:30 A. M.

Presiding: Mr. James H. Wallis, of Idaho, President of the Association.

President Wallis: Gentlemen of the convention, it is past our time for convening, but if we wait for everybody we will be very late beginning, so I think possibly we had better commence and while we may perhaps be unable to just stick to the program I think we had better go ahead.

Before we go on with the program I have an announcement to make to the convention. After the

adjournment yesterday afternoon, the Executive Committee of the Association met and decided to rush the work through and try, if possible, to adjourn on Friday night, cut out Saturday, and so we are going to ask all of those who have any part on the program to be sure they have their papers with them so that we can call on them at any time to read them and get through with the program on Friday night.

Yesterday Dr. Charles Caspari was not here with us to make his report on the Standardization of Drugs and Tolerance Limits in Drug Adulteration, but he is here now and I will call on him to make that report before we take up our regular program. Dr. Chas. Caspari, Jr., the Commissioner from Maryland.

Dr. Chas. Caspari, Jr.: The committee appointed in regard to securing an amendment to the Federal Food and Drugs Act met in Washington and in the absence of Secretary Houston, Secretary Galloway met us and gave us several pieces of advice in regard to procedure—which were followed. These are outlined in the report which I am about to read. I am sorry to say that our efforts were wholly negative and it will require a reopening of the case, perhaps during the coming session of Congress next winter. This is the report:

REPORT OF SPECIAL COMMITTEE ON SUB-STANDARDIZATION OF DRUGS AND TOLERANCE LIMITS IN DRUG ADULTERATIONS.

The committee appointed at the last annual meeting of this association for the purpose of making an effort to have a sub-standard clause of section 7 of the National Food and Drugs Act of 1906 either modified or eliminated called on Acting Secretary B. T. Galloway in Washington city and presented to him the resolutions adopted by the association together with a plea for his assistance in the matter at issue.

After a cordial reception and careful reading of the document submitted, your committee was informed that the Secretary of Agriculture was powerless to take any action in this matter, unless it reached his hands in an official way, and Secretary Galloway suggested as the only feasible plan that the whole matter be presented to the two committees of the congress having charge of interstate and foreign commerce.

The chairman of the two committees being absent at the time, letters were addressed to Judge Adamson of the House of Representatives committee and the Hon. Francis G. Newlands of the Senate committee, enclosing copies of the resolutions and asking for early favorable action by their committees.

Not having received a reply in due course of time, another letter was sent, and in response to this your committee was informed that the subject had been referred to the committee on manufactures in the Senate, of which the Hon. Jas. A. Reed of Missouri is chairman, and the sub-committee of the House having charge of pure food and drug legislation, of which Hon. J. Harry Covington is chairman.

Correspondence with the two gentlemen last named has elicited the fact that owing to the pressure of important bills before Congress, it would not be possible to take up the question of amending the food and drugs law at present, and your committee regrets to report that it has not been able to accomplish the object for which it was appointed.

It might be well again to call the attention of the chairmen of the two sub-committees to our previous correspondence after Congress reconvenes in Decem-

ber next, and it may be possible then to secure some action on the resolution of the association.

Respectfully submitted,
(Signed.)

CHAS. CASPARI, JR.
C. H. BILLINGSLEY.
F. H. FRICKE.

July 1, 1914.

Mr. R. E. Rose: I move the report be adopted.

President Wallis: You have heard the report of this committee of which Dr. Caspari is chairman. A motion has been made to adopt it. And I think the chair will suggest that the committee be continued in its work.

Mr. R. E. Rose: I move that the report be adopted and the committee be continued in its work.

Motion seconded.

President Wallis: It has been moved and seconded that this report be adopted. All in favor say "Aye," opposed "No." The ayes have it, and the report is adopted.

Dr. Chas. Caspari, Jr., of Maryland: I would like to say just a word or two, Mr. President. If any one present has a suggestion to make in regard to this matter I would be very glad to have him do so. I think it is going to be a very difficult matter to get this amendment through the two houses of Congress and the Secretary of Agriculture feels that he can do nothing at all and the President of the United States would not entertain any action until Congress had taken some steps.

President Wallis: The chair will ask for any expressions of opinion that might assist the committee in this work.

Well, if there are none, we will go to the next order of business, which is the first paper on the program, "General Standards," by Dr. C. L. Alsberg, chief of the Bureau of Chemistry. (Applause.)

ADDRESS ON GENERAL STANDARD.

BY CARL L. ALSBERG.

Delivered at the Eighteenth Annual Convention of the Association of American Dairy, Food and Drug Officials, at Portland, Me., July 14, 1914.

I think I may safely assert before this meeting that this Association favors the establishment of legalized general standards, and that our only object is to protect the consumer more effectively.

General standards would vastly simplify the enforcement of food and drug laws. Most prosecutions would be reduced in the main to questions of chemical analysis, that is to questions of exact science. Exact science to be sure is far from being as exact as it pretends and it has a way, when scrutinized in a court of law, of becoming vague like a dissolving view. Nevertheless, it is perfectly obvious that issues of pure fact are simple as compared with the perplexing mixed issues of fact and judgment that so often befog the issues in our courts today.

Standards would lessen the cost of administering the law very greatly. There would be fewer expensive trials with scores of high-priced experts on both sides. Consequently, a given appropriation would go further. Where, however, no standards have been fixed, it is necessary to try the issue on scientific opinion before a jury. It results in the costly arraying of sets of experts against each other, each trying to prove that the opinion of the other side is wrong. The jury then must attempt to weigh the tremendous volume of testimony, much of which is apt to confuse a layman. The issues can not be clearly drawn or made absolutely plain to the jury, and the decision may well do injustice to either side. Whatever the outcome the process, in the absence of standards,

is an expensive, long-drawn out and troublesome one for both sides.

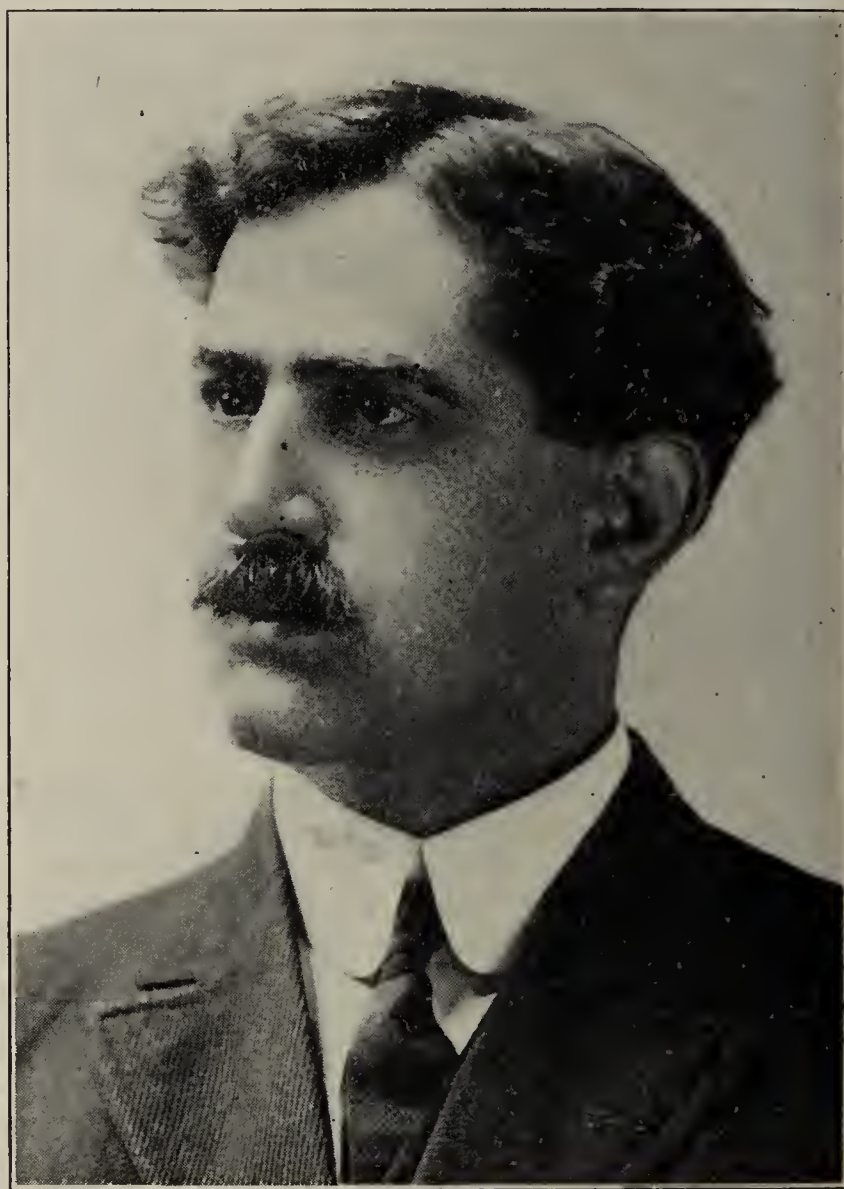
Even this might not be so unsatisfactory if such a battle of experts settled anything. As a matter of fact it settles nothing but the case litigated. It may be necessary to fight the whole campaign over again every time a similar alleged violation is brought into court. And so on without end.

General standards would very largely eliminate the very human bias of the official. The elimination of the personal equation is an end to be striven for in matters of this kind. The advantage to the official, though not so patent, is equally great. It lightens official responsibility and protects the official from any suspicion of unfairness.

It must, therefore, be quite evident to any one who will give the situation serious consideration that the enactment of standards will make it possible to give to the consumer the maximum of protection at the minimum cost.

Let us next consider the principles that must be followed in shaping standards. There are three that seem absolutely essential:

The standards should permit no unwholesome or deleterious food to reach the consumer.



DR. CARL L. ALSBERG, Chief Bureau of Chemistry, Department of Agriculture.

The standards should allow no form of deception to be practiced upon the consumer.

The standards should deprive the consumer of no wholesome food, however cheap.

In these days of keen competition and high prices the establishment of standards based upon luxury or unusual quality would be a doubtful service to the people. There is a place and a level for every wholesome food. It must be our duty to see that each article finds its proper commercial level. This can be attained only by preventing every form of misrepresentation.

However, we must not merely be on guard that standards do not exclude any wholesome food from commerce, but we must also take care that the standards when established do not become rigid and inflexible. They should be easy to modify

and to change. Rigid standards may not merely work injustice; but they may also hamper progress in the manufacture of foods. This is really a serious danger. With our population concentrating in large cities, our food industries must change to meet the demands of a civilization based no longer on agriculture alone. If our people in our great cities are to be fed our standards must not hamper progress in the food industries, provided such progress does not result in deception, fraud, or danger to the public health. Therefore the interests of the consumer demand that in the enactment of standards some simple machinery be provided for their modification to meet new and improved conditions.

Still another factor that must be considered is that certain types of foods can not easily be standardized with any great exactness. These are the foods in which the personal taste and preference of the consumer dictate the composition. For them we must content ourselves with establishing general principles which will leave sufficient latitude for the full exercise of individual tastes. If we were to do otherwise our standards would degenerate into a compilation of cook book receipts.

I believe the time has come when a sincere effort to establish standards will meet with but little opposition. The honest manufacturer as well as the consumer will be protected by proper standards. The manufacturer will have a firm and known basis on which to do business. At present all is confusion. Uncertainty will largely disappear and uncertainty is the death of trade. Uniformity will grow out of the existing chaos. The honest manufacturer knows well that his interests and those of the consumer are identical.

President Wallis: Commissioner Emery of Wisconsin was to have opened the discussion on this subject, and was to have been followed by Commissioner J. W. Mickle of Oregon. Neither of them is present, so the entire convention can feel at liberty to discuss this question.

Dr. Wm. Frear, of Pennsylvania: I rise simply to express my gratification that Dr. Alsberg has so clearly and strongly emphasized the three points of advantage in the administration of food laws to be attained by the establishment of legalized standards. I feel absolutely sure that we would be doing great harm if, in the endeavor to establish clear lines of demarcation, we restrict variety in production. Standards should not be used to narrow this variety so that individual tastes can not find their full enjoyment, so that individual skill on the part of the producer can not have its satisfaction in the delight of the consumer and in the money he is willing to pay to be delighted; but even beyond these considerations, since the population of the country is growing at a tremendous rate, more rapidly than its food production is growing, more rapidly than with all the efforts of our experiment stations we have been able to increase the acre yield of crops, or the number of cattle that can be kept on a unit area, or the amount of milk that the individual cow can be made to yield, it is certainly of the most serious importance that standards adopted be so framed and applied as not unduly to interfere with the production of new things that are desirable.

The standards that we establish ought to be definitely applied to certain specific things for which we may have now the standardizing data and then leave the field absolutely clear for the things for which we do not yet have the data, for the things which the skill of the chemist or men of other scientific attainments may devise for our benefit in the future, so that when these come they may have one advantage—that they may be sold for exactly what they are and on their own merits. They ought not to claim more than that, but certainly they are entitled to that. If they have a quality which renders them pure and fit and

desirable for consumption they ought to have a fair field for their production and the right to be sold for what they are.

If we keep these things clearly in mind and act with care it seems to me that the standards which we all favor in some way, ought to be drawn and will be drawn so that they will be useful to all and injurious to none save the dishonest.



DR. WILLIAM FREAR of Pennsylvania.

President Wallis: Mr. Julius T. Willard of Kansas.

Mr. Julius T. Willard: There is one point about standards that I think is worthy of consideration, more consideration at any rate than it has received yet and that is the tendency people have to look upon a set standard as a maximum. Now take the butter fat of 3.25 in the milk standard. That was set as a minimum in the standard. Now the average milk from a herd of cows in this country is considerably better than that. It is, perhaps, nearer 3.6 or 3.7, and yet if prosecutions are brought on milk that is a little below 3.25 the tendency is to look upon the offender as not very bad, when in point of fact he has overstepped his intentions a little. That milk probably started out a good deal better than that.

You know mixed milk, such as the ordinary producer of milk would supply, wouldn't be as low as 3.23 unless under very exceptional circumstances. There might be some few high-producing cows whose milk might be 3.25, but as an average the milk, the general average milk, of this country is certainly higher than that.

And the same thing applies to other articles. If we establish standards we must try to protect the genuine articles, of course, even if some of them are some-

what inferior in quality, but the tendency of the producer is to have his entire production only measure up to this low quality. Would it be possible to have standards express the maximum, minimum and average? And would it be practicable in administration if they were framed in that way? I think that this point is worthy of serious consideration by our committee on standards.

Dr. Wm. Frear, of Pennsylvania: May I suggest a matter which has given great difficulty, and I am not speaking for the Standards Committee at all nor to embarrass any member of that committee. I refer to the possibility of standardizing grades. And if you don't come to the point where the consumer is not so plagued by the multitude of standards, to the point where they cease to be useful, then I am sure the standardizing of grades would go far to diminish the need for the type of minimum standards which have been adopted in view of the natural variations in composition and in view of the fact that the man who violates the standard is immediately subject to criminal action.

Dr. C. L. Alsberg: I may say—I suppose you all know this, but possibly you have not thought of it in this connection—that we do have standards of quality in the grain trade. We have No. 2 and No. 3 corn and wheat, and that plan has been found to be absolutely necessary in order to conduct business in the grain trade. They have found it necessary to have standards of quality. And the Secretary of Agriculture has been authorized by Congress to make the necessary investigations for the establishment of proper standards for grades, that is qualities of grain and to promulgate and fix them as soon as he has the necessary data for their establishment.

And in the case of corn, such standards have been promulgated and fixed. And the department is soon to fix similar grades and standards for wheat. So that in this one product, at any rate, you see Congress has authorized the Department of Agriculture to do the very thing which Mr. Willard suggests is necessary in the establishment of standards.

To be sure, the standards which are promulgated in this way by the Secretary of Agriculture cannot be enforced. That is to say, they are simply standards which will have to be adopted voluntarily by the grain trade. It is not possible at the present time, of course, to predict to what extent they will be adopted because they only went into effect on the 1st of July—that is, the standards on corn—but we have here, at any rate, a case of exactly the sort of thing you people think desirable for standards in forms of food other than corn.

Dr. Chas. Caspari, Jr., of Maryland: I should like to ask Dr. Alsberg one question. Will the committee to which has been entrusted the preparation of standards for foods take into consideration possible tolerances and limitations, such as we have in the United States Pharmacopoeia? They have been working remarkably well there and bearing in mind the fact that drug preparations, even under the most careful supervision, are liable to change, it looks to me that it would be well for the Standards Committee to introduce into their report some similar arrangements or suggestions, so that the food officials in the States would often be relieved very materially of some hard conditions which now confront them.

I realize, naturally, that in the case of foods the spontaneous deterioration of a good food is not as

likely to occur as it is in a drug—a drug like nitrous ether, which we cannot control, we all know, even with the most careful methods of manufacture. But in the same way sometimes the manufacturer of foods is placed at a disadvantage by reason of a combination of circumstances over which he has no control, and I think it would certainly be a material help to the food official if something in that line could be provided for. I don't know what the project of the committee is in this matter, but if they had not thought of it, I should like very much to lay the matter before them as a suggestion.

President Wallis: Well, there don't seem to be any more discussion on this subject.

I would like to state that Mr. C. L. Baxter of the Portland Packing Company, in whose behalf Dr. Bigelow last evening extended the invitation for the shore dinner this afternoon, is now present with us and desires to make the invitation in person. If there is no objection, Mr. Baxter will now make the invitation.

Mr. C. L. Baxter: Mr. President, and members of the convention, I wish to extend an invitation on behalf of the Burnham & Morrill Co.; Fernald, Keene & True Co., and the Portland Packing Co. to the Association of American Dairy, Food and Drug Officials and their families to a shore dinner to be given at the Cape Cottage Casino Tuesday evening July 14th at 6 p. m. Special cars will leave the Congress Square Hotel at 5:30 p. m. Now, as there is no siding at that point, I sincerely trust that you will all be on hand to avoid delay.

Now on account of the short notice, this invitation can only be extended to the Commissioners and their families because I could not make the necessary arrangements at the hotel for more. But a second invitation is extended to the visitors to the convention to another shore dinner at the same time at Riverton. The cars will leave the Congress Square Hotel on the side street promptly at 5:30 this afternoon and dinner will be served at 6. I am sorry that we could not arrange to have you all at Cape Cottage but they positively refused to take care of such a large number there on the short notice I was able to give.

President Wallis: The next number of our program this morning is a paper by Dr. Lucius P. Brown of Tennessee on the "Misuse and Abuse of Coined, Proprietary and Distinctive Names." Dr. Brown is not present with us, however, and I would like to know if those appointed for the discussion, Dr. W. M. Allen of North Carolina and Dr. H. C. Lythgoe of Massachusetts, are present and prepared to discuss this matter.

Dr. Wm. Frear of Pennsylvania: I rise to a point of order. The time immediately following the discussion on general standards was fixed as a special order.

President Wallis: The Chair stands corrected. That is right. I had forgotten that. The report of the committee which Mr. Flanders submitted yesterday was to be taken up as a special order.

Dr. Wm. Frear: I suggest that the report be reread.

President Wallis: Mr. Flanders will read it again.

Hon. Geo. L. Flanders of New York: Then read the report as printed on the preceding pages.

Dr. Woods of Maine was on the committee when it was appointed but he is not in the food work any longer and is consequently no longer a member of the committee, but it is signed by all the other members.

President Wallis: The matter is before the convention for discussion.

Mr. R. M. Allen of Kentucky: Mr. President, would it not be in accord with the constitution to have it referred to the Resolutions Committee? I am of the opinion that that would be the proper procedure. I don't interject this to delay its adoption at all but I think we have a constitutional provision which requires that all resolutions shall be referred to the Resolutions Committee and then reported to the Association. It seems to me that such action would have to be taken, therefore, in the case of this particular resolution.

President Wallis: The chair is of the opinion that this is a report and is before the convention for adoption.

Dr. Wm. Frear of Pennsylvania: The report itself calls for the presentation to the association of a resolution to carry into effect the purpose of the report and possibly, to follow that, the formulating of a special bill which would incorporate the provisions of the resolution and report, which special bill should later be presented for consideration to Congress. The question arises what is the proper machinery to bring about this result. If the Association wishes to take affirmative action, as I trust it may, what is the proper way to go about it?

President Wallis: A motion to adopt it and refer it to the committee on resolutions.

Mr. R. M. Allen of Kentucky: I move that the report be adopted and referred to the committee on resolutions.

Motion seconded.

President Wallis: You have heard the motion, gentlemen of the convention. All those in favor of it say "Aye"; those opposed "no." The ayes have it and it is adopted.

Now, gentlemen, the next order of business is what I stated when I was out of order awhile ago when I announced that the next thing on the program was the discussion of Dr. Brown's paper. I would like to ask whether those who were appointed to lead the discussion are prepared to do so or not. Mr. Lythgoe, are you prepared?

Mr. H. C. Lythgoe, of Massachusetts: The state of Massachusetts has no clause in the food law in regard to distinctive names and for that reason, Mr. President, I don't feel that I am a proper person to discuss this question at length. From my experience, however, with food and drug samples which are distinctively named, I feel that a law containing those words "distinctive names" would be very inferior to a law which does not contain it because I have had many men complain to me in regard to reports of adulterated foods published in our bulletins on the ground that those goods were sold under their own distinctive names. But they saw very quickly that the distinctive names didn't help them any in our state.

That is all I could say upon the subject, I think. However, Secretary Allen of North Carolina has something to say. He told me he expected to make a few remarks on this subject.

Hon. Geo. L. Flanders of New York: I want to say a little, not too much, and I am not going to apologize for being a platitudinist either, and I don't think Dr. Alsberg should have. As I understand it, you cannot discuss any great fundamental principle that affects government or legislation without utter-

ing something somebody somewhere might dub a platitude and I don't think we ought to be discouraged in doing it. So in discussing this proposition I want to say this: When these bills were originally drawn it was not thought it would be proper to have them apply to bread, pies, cakes and so on made and put upon the market—to have them so labeled. It was not thought practicable to do that and so they put in that exception. What was the result? We were surprised at a good many turns by the ingenuity of the manufacturer—we are told ingenuity always keeps pace with greed. We first found them saying, "We have a trade secret." Now to me it has always seemed that when a trade secret interferes with a man's right to know what he is putting into his stomach then it became time to discriminate against the trade secret.

One of the two fundamental principles of these laws is this: You shall keep out of every port harmful products of food. And another one is that you shall label your product in such a way that the man who consumes it may be able to distinguish and determine for himself what he is putting into his stomach.

Dr. Alsberg said something about a man's personal preferences. There are a number of such products. But now where are we coming to on this proposition? In New York state we have an exception in the law. We have five products that can be sold in New York unlabeled that are compounds, mixtures or blends and they are indicated to be such by label and the ingenuity of the manufacturer is developing right along that line, too, and there are new questions coming up relating to it. We have beaten some of them in court. Here is an article we have come across, "O'Sullivan's Fifth Avenue Sauce"—the distinctive feature of that was its being "O'Sullivan's Fifth Avenue." If that can carry that stuff through the courts and they can get away with it, where are we going to land?

I raise this question for your serious consideration, gentlemen, and to get your opinion. That is a proposition that is coming before all of you. We have to face it. I ask you very simply and plainly if things like that get by, is there any substance under the sun that cannot be sold under a distinctive name and wipe out the whole labeling law. If that sort of thing can go on, I ask if it wouldn't be better to take that whole clause out of the law or modify it in some way. I have no remedy to offer myself but I just offer that as a suggestion or a thought for your consideration.

Dr. Alsberg: I would like to make some remarks, not pertinent to this discussion but harking back to something Dr. Frear said apropos of standards because it was brought to my mind because of something Mr. Flanders said.

We must agree, I think, that we have to take some account of individual tastes. We must not prescribe recipes of how doughnuts and pies shall be made. But I can explain what I had in mind when I mentioned the fact that we had to lay down some general principles for even such products. Mr. Flanders' remarks made me think of bread. You can make bread with the moisture content varying up to 40 and 45 per cent. Some of you may not be aware that there is a commercial article containing that amount of moisture. It is not baked; it is steamed and is made

for the special purpose of making sandwiches in dairy lunch rooms. It has no crust and it is so moist that they can make up their sandwiches in the morning and have them still acceptable to the consumer at the end of the day or, if necessary, the morning of the next day. Yet in a case like that, where we deal with the main food product of the people, we should certainly have something to say concerning the amount of moisture that a baker is permitted to put into his bread.

We should not have too much to say concerning the recipes but we should have something to say concerning the nourishment in a loaf of bread and so it is general principles of that kind that I think we ought to insist upon. They are difficult to set, but I think they are necessary.

Hon. Geo. L. Flanders: I want to ask you one question on that point. Should we have anything to say about the amount of nourishment in an article of food or should we have anything to say about their telling the truth about the nourishment that is in that article of food?

Dr. C. L. Alsberg: I think I may have misstated my position. I did not mean to create the impression that we should exclude from sale bread containing say 45 per cent of moisture. We should insist that the lunch room man who buys it and knows what it is should not make any false pretenses about it when he sells it and we should insist that that bread is not sold to the housewife. It comes again to the question of not misrepresenting to the public.

President Wallis: Mr. Allen of North Carolina states that he is not prepared to discuss this question of distinctive names. If there is no further discussion of it by the convention, we will pass to the next order of business, which is a paper on the "Most Efficient Methods, Including Building and Cost of Meat Inspection for Small Communities" by Mr. R. M. Allen of Kentucky.

Mr. R. M. Allen: Mr. Flanders and Dr. Alsberg well said of all these questions, that we must go back to fundamental principles, and in discussing the question of the cost of an abattoir for small communities it is necessary to go back to the sources of information, i. e., the large packing plant, and build down.

MOST EFFICIENT METHODS, INCLUDING BUILDING AND COST OF MEAT INSPECTION, FOR SMALL COMMUNITIES.

R. M. Allen, Kentucky.

According to the U. S. census estimates, the average beef weighs 1,019 pounds, before slaughter; the dressed carcass, 543 pounds. Much of the economic and public health meat problem lies within the 476 pounds of hide, tallow, offal and other by-products. At 8 cents per pound the live steer costs \$81.52; at 13 cents per pound, the finished carcass sells, wholesale, for \$70.59. Two industries, therefore, are necessary to profitable slaughtering—the preparation of the meat for man; and the handling of hides, and production of tallow, grease, fertilizer, feeds and other by-products. The level of wholesale meat prices is largely fixed according to the way that the 476 pounds are handled by from 50 to 60 per cent of the industry, on the one hand, or the manner in which they are mishandled and wasted by from 40 to 50 per cent of the industry, on the other.

Let us conservatively estimate the unorganized part of the industry, where offal is largely wasted, to be 40 per cent of the industry, as a whole, and direct the attention of the American public towards the gigantic waste and insanitary danger involved. The courts have declared this 40 per cent of by-product pounds to be a nuisance per se. Health depart-

ments have ordered it to be left beyond the boundaries of the city. It contaminates the air, pollutes the streams and scatters disease to both animals and man. It has been one of the sources of infection for hog cholera, both from the feeding of the offal and the pollution of the streams from which the stock drink. No meat is slaughtered within this



MR. R. M. ALLEN, Agricultural Experiment Station of Kentucky.

nuisance without contamination, without destroying keeping quality and ultimately increasing the ice bills or storage difficulties, without affecting flavor and other quality. In most cases flies feed alternately upon the rotten offal and meat in preparation. It is a gigantic public health and economic problem, amounting in the United States annually, with inefficient methods of killing, to more than \$60,000,000 of estimated available net profit, an amount which, if conserved, would build 1,000 model plants, to cost \$60,000 each, or sufficient plants between the ranges of \$20,000 and \$80,000 to soon take care of the whole of the 40 per cent of the uninspected and insanitary slaughtering of the country's meat supply.

Whatever economic quarrels the public may have had with the American packer, the large plants have demonstrated the methods and profits of centralized slaughtering, offal conservation, and applied refrigeration. This lesson, if the country will but now apply it to the whole of the meat industry, is more than worth all of the fixing of prices, real or assumed, for which the packers have been held responsible in the public mind. Moreover, the adaptation of the practical knowledge which their methods have established is, together with laws which prevent unfair methods of trade, the real remedy in the slaughtering and wholesale fields of economic meat.

There are many phases to the dual problem of economic and sanitary meat. The production of the live hog or steer has its problems of sanitation and efficiency, costly alike to both producer and the public generally; then, after slaughter and preparation, inadequate methods of storage and handling on the part of the retail trade, together with lack of business system and other costly insanitary and unnecessary

methods, add unnecessary millions of expense to both the retailers and consumers. We are dealing, however, in this discussion with the one phase, namely, economic and sanitary slaughtering and preparation.

As a basis for illustration, let us take 38 of the slaughtering plants in and around Louisville and eliminating plants in which there is tankage, refrigeration and organized efficiency:

MEAT SUPPLY—SOME WASTES IN SLAUGHTERING.

Number of animals killed annually, United States, by U. S. census (approx.):

Cattle	14,000,000
Hogs	53,000,000
Sheep, veal	21,000,000

Number of animals killed under inefficient methods of slaughtering estimated at 40 per cent of total, or

Cattle	5,600,000
Hogs, sheep, veal	29,600,000

UNDER INEFFICIENT METHODS.

Cost of killing 5,600,000 cattle at \$4.00 (estimate) ..	\$22,400,000
Cost of killing 29,600,000 hogs, sheep, veal, at \$1.20 average (estimate)	35,520,000
Total	\$57,920,000

UNDER EFFICIENT METHODS.

Cost of killing 5,600,000 cattle at \$1.50 (estimate) ..	\$ 8,400,000
Cost of killing 29,600,000 hogs, sheep, veal at \$0.50 average (estimate)	14,800,000
Total	\$23,200,000
By difference	\$34,720,000
By offal (estimate \$1.00 for cattle and \$0.50 for hogs, sheep, and veal)	20,400,000
By advance, hides and tallow, better grades and better marketing facilities	5,600,000
Total	\$60,720,000

Applying the Louisville estimates to the whole meat supply of the country, we have:

ESTIMATED PROFIT ON CONCENTRATED KILLINGS BASED ON 38 PLANTS IN LOUISVILLE AS ILLUSTRATION.

SEPARATE PLANTS.

Cattle killed per week	386
Hogs killed per week	218
Sheep killed per week	200
Veal killed per week	225
Interest on investment in 38 plants with lot, equipment, averaging \$10,000—\$380,000 at 6%	\$22,800
Estimated annual ice expense	20,000
Employees, 103 at \$2 per day	61,800
38 delivery wagons and horses, maintenance, depreciation	15,000
Water and incidentals	5,000
Total	\$124,600

PROPOSED CENTRAL PLANT.

Cattle killed per week	386
Hogs killed per week	218
Sheep killed per week	200
Veal killed per week	225
Interest on investment in building with insulation costing \$60,000 at 6%	\$ 3,600
Interest, depreciation, repairs on \$40,000 equipment ..	6,400
Power	15,000
Employees, 25 at \$2.50 per day	18,750
Five delivery wagons and horses, maintenance, depreciation	2,500
Water and incidentals	5,000
Total	\$51,250
By difference	\$73,350
By finished tankage and grease from offal	22,725
By heads, feet, horns, hair, etc.	10,000
By advanced price on hides, tallow, etc., due to better handling, 20,000 head at \$1.00 each	20,000
Estimated net profit	\$126,075

The first out-standing problem is to finance the abattoir. There are two plans: One as a municipal enterprise, through the issuing of bonds, which should be both taken care of and liquidated from the profits. The other, through a joint stock company organized among the butchers, retail meat

dealers and others, who will see the movement as a profitable investment, provided the plans for operation are practical and put under the right kind of management. The first step is to thoroughly survey conditions and point out that the state laws and city ordinances cannot be complied with, without heavy investment on the part of each individual butcher. It will be necessary to give the facts of diseased animals and insanitary plants, together with the names and details, to the local public. Otherwise there will be little interest on the part of the majority of the butchers, until faced with such a condition. As a first step, one or two stormy conferences between representatives of the city, butchers and others will be necessary. Out of these conferences more co-operative spirit should be developed. A committee broadly representative of all the local meat interests should be appointed. With this committee it should be possible to work out a start. The task will be faced with such questions as "What shall we do with our present plants and equipment?" "Will the central plant destroy our individual business?" "Will the ordinance require all meat to be killed in the plant?" "How about the man who kills an animal every now and then?" "Will he be required to bring that animal to the plant?" "What attitude will the outside packers take in the way of lowering meat prices to prevent the abattoir's success?" It will be found that the butchers have not been working together; that there has been little effort towards co-operation, and the first central step of the task will be to bring butchers to recognize the necessity, benefits, profits and other desirabilities of one central plant. This accomplished, the company can be organized and the stock offered to retail meat dealers. Some of the progressive bankers and other business men of the town will take an interest, but before they will put up their money it will be necessary to convince them that every effort will be made to have a good management and that the plant is to be started along economical lines so as to fully take care of interest and depreciation charges in figuring profits. Having gotten this far, the packing house supply firms will already have heard the news and be in touch with the situation. Each and all of them should be given an opportunity to figure, and it would be well to call in the services of a local engineer, the city engineer, or one of the engineers connected with the State University or agricultural college to advise in making final selections, especially as to tankage, refrigeration and insulation. The company should only plan to undertake slaughtering, tanking and refrigeration of the meat to start with, as the general packing house business is one that should not be gone into without very firm first steps.

The plant should be planned on the unit system of construction. Insulation for refrigeration is one of the costly items, and this can be added to by units as the business grows; in the same way an extra tank for offal can be later added. The boilers, engines and motors should be large enough to take care of future business.

After advising with supply firms, packing house engineers and the engineering department of Kentucky State University, and submitting plans to butchers, the Kentucky department has suggested model first floor plans for abattoirs. The abattoir planned to take care of killings of a city of from ten to fifteen thousand people is estimated to cost, with brick construction and with the latest and best machinery, \$20,000, divided as follows:

Building (brick)	\$8,500
Insulation (cork)	1,700
Refrigeration apparatus (10-ton)	4,000
Abattoir equipment	900
Boiler, including piping	1,000
Tankage outfit	2,300
Plumbing and incidentals	1,600

This plan is shown on the accompanying illustration. The capacity of such a plant can be further extended by adding one additional unit of storage, another tank and increasing the number of employees. As it is planned, it should take care of from 15 to 20 cattle per day, from 20 to 30 hogs and some sheep and veal, or its work can be divided so as to specialize on the killing of hogs on one day, beef another, and so on. This is more animals than we find are being killed at present by the local butchers in Lexington, a city of 40,000 inhabitants.

If the plant does a justifying interstate business, it should request an inspector under the Federal Meat Inspection Act, and it would be well for Congress to appropriate sufficient money to allow the Bureau of Animal Industry to supply an inspector in any case where a municipality provides the necessary centralized plant and ordinance. The Government could

well spend a few millions more in this direction, and such an expenditure would encourage municipalities to provide the requisites necessary to obtain a Federal inspector. The inspection done by the city must either be done by direct appropriation or inspection fees. In the latter case the amount of the fee will necessarily be determined by the number of animals slaughtered and a fee should also be charged for the inspection of meat coming in from other cities. At the present time much spoiled meat, although inspected at the time of slaughter by the Federal Government, arrives from elsewhere, and it should pay its equitable proportion of inspection expense.

The plant should be located within the sewerage districts of the city, and so as to be connected with the city water supply. It is possible to operate it without offensive odors. Its frontage can be made attractive with a grassy lawn and shrubs. It is possible, through modern systems of tankage, to control the odors, and especially if offal and parts of carcasses are tanked when fresh, and the tankage system both inside and out be kept thoroughly washed and steamed. An insulated room for condemned carcasses or parts of carcasses should be provided adjacent to the tankage room, so that the spoilage in taking will be reduced to a minimum.

There is no reason why such plants should not be erected in connection with every municipality whether large or small, and it is a practical venture for consideration by farmers' cooperative societies. Through such plants not only can the local meat supply be killed more economically and in a sanitary manner, but also stored until convenient delivery. In a community plant it would be possible for the farmer to have his hogs killed and chilled without having to feed until the proper cold weather sets in, his lard properly rendered, sausage made and hams and bacon put into salt or pickle, and the surplus product sent into the market. Such community plants would afford an excellent system for the collection of eggs and thus be of great benefit to the egg market of the country as a whole. One need in the egg problem is for quicker protection by cold, and eggs gathered at once into adequate storage could be loaded into refrigerator cars and thus escape the long and deteriorating methods which prevail in the gathering of eggs towards the larger markets.

Kentucky has dealt with this subject more in detail in Bulletin 173, entitled "The Municipal Abattoir," and under such headings as the relation of the problem to breeder and feeder; Federal, State and municipal systems of meat inspection; state inspections; state regulations; the authority for the municipal abattoir under the state laws; the Freibank system of cooking diseased animals for food; meat inspection in other countries; offal wastes; suggested model ordinance for municipalities; building and equipment; Kentucky plans for model abattoir; inspection fees; city versus private ownership; and other headings.

Circular 173 of the national Bureau of Animal Industry on "The Sanitary Construction and Equipment of Abattoirs and Packing Houses," and Circular 185 from the same bureau on "State and Municipal Meat Inspection and Municipal Slaughterhouses" contain information on this subject in a very excellent and concise form, and will be found valuable aids in undertaking to remedy the local meat inspection problem through the municipal abattoir. Valuable information of a most practical character can be obtained from plans of plants already built, which the abattoir supply firms will gladly furnish to all interested, and a committee should visit and observe model plants in operation. In Cleveland, Cincinnati, Nashville, Paris, Texas, and other cities and towns excellent information can be had by personally visiting or addressing the health department. Mayor McCuiston of Paris, Texas, has made a very extended study of the economic phases, and his statements will be found invaluable in connection with any investigation on that subject.

The time has come for the municipal abattoir—a centralized plant—as the only practical remedy for meat inspection. It is the only way in which the health nuisance can be converted into profitable by-products, and thus prevent the spread of disease through cooking the offal. To accomplish this reform means the arousing of public sentiment from one end of the country to the other, and the demonstration of the practical methods by which the plants can be financed, organized and operated. One outstanding problem in this connection is the need for efficient management. We have been paying too little attention to the education of "the butcher, the baker and candle-stick maker," until at last we find that these neglected trades are very close to both the purity and the economy of our food supply. The high schools, colleges and universities can help by adding short and long courses, designed to

equip individuals with the practical knowledge necessary to the conduct of efficient meat slaughtering and preparation. We are beginning to undertake such work in Kentucky. Already we have an experimental bakery in operation and to which the bakers are to come for a short course in the same way as the University gives short courses to the dairymen and stock breeders, and we hope, in the course of another year, to have a similar model slaughtering plant and to demonstrate and teach the lines of information that will make better butchers, and through them, a better meat supply.

(SEE PLAT OF INTERIOR PLAN, PAGE 528.)

President Wallis: Those who are appointed to take part in the discussion are not here and we will call on Mr. Johnson of Texas to explain the situation there.

Mr. T. H. Johnson of Texas: I think Mr. Allen has covered the subject pretty well. We have one plant at Paris, Texas, that is controlled by the city. It was put up six years ago. It cost \$10,000. This is controlled and handled by the city altogether. They have their cooling room, cold storage room, tanks and vats and so on and since it has been established it has paid 10 per cent dividends and we find with the butchers it is very hard to get them to work together and we can't get them to establish abattoirs. It is better to get the city to control them. It is all run on the fee basis, so much a head, 25 cents for hogs. In that way there will be enough paid in to keep the plant in operation.

You take the smaller towns and there is no inspection at all. But we have at least eight or ten towns all over the state figuring on municipal plants and I think in a few years we will have all this under control. It is hard to take care of it in the small communities, though.

President Wallis: Any other discussion on this paper?

Com. G. G. Frary of South Dakota: Paris, Texas, has ten thousand people and the abattoir there cost \$10,000. But in our state we have only two towns of 10,000 inhabitants or over and our problem is to take care of the meat supply for the smaller towns and I have wondered if that plan would be practicable for the smaller towns. I have given the matter some thought and I have wondered if the butchers in the smaller towns could not be induced to go in and use a central plant planned to kill cattle for several towns or a county. I would like to know if this plan has been tried.

Mr. R. M. Allen of Kentucky: Why, yes, I think it would be an excellent plan. But where you have these smaller towns why not interest the farmers in it? The farmer needs ice and keeping his winter supply of meat is still quite an item. Along the line you are thinking of, Mr. Frary, the Mayor of Paris, Texas, has written a letter to the commissioners—as to whether it is a general letter or not I don't know—but he covers this subject very well from the standpoint of what the farmer needs and I should think in your smaller towns it would be a good plan to group the needs, the fresh meat and the fact that the farmer feeds his hogs six weeks longer than is necessary because he is waiting for a cold snap to kill them, and so on. I would like to emphasize the building of a small plant which has refrigeration. You need that and it ought to be well done and I should like to see some state try it by getting two or three towns together and building a central abattoir.

Mr. F. A. Jackson: I would like to ask Mr. Allen if his plans there are for concrete construction.

Mr. R. M. Allen: Yes.

Com. W. E. Barney: I wanted to ask whether you had any plan providing for inspection.

Mr. R. M. Allen: Yes. Of course there will be inspection. That was to be done either by the municipality or by fees—25c for cattle and 15c for hogs would cover the inspection fee. I believe they will not object very much when they come to realize what benefits it means. I have a plan—I don't know whether it is ten or fifteen years away but it is this: We have a large meat inspection service in Washington, well organized. I would be in favor of our going to Congress and saying, "Here, you appropriate \$5,000,000 more and to any municipality that will build an abattoir up to the standard, the Department of Agriculture to prescribe that standard, give them an inspector." My plan is to have the government give you an inspector providing you will give the government a plant in which to do this work. I hope that idea will be developed. But until then the city will have to appropriate about \$1,500 extra and pay it directly out of the city treasury or else you will have to charge an inspection fee. Either way would cover it.

Hon. Geo. L. Flanders: Then I take it that this is an economic question he is speaking of and it suggests itself to me—does not the average person buying meat prefer meat which has been inspected by the government to any other? Does it not discourage the farmer back in the state from producing animals for consumption? Living is high. Now if you could encourage the raising of meat in the state where it is sold to be consumed in the state by providing meat inspection—but providing meat inspection would not encourage the production of meat within the state more than we are now getting. And so would it not become a matter of state regulation so that we could rely upon it? Would that be an inspection that could be relied upon?

Mr. R. M. Allen: I think Mr. Flanders has struck another mighty good nail on the head. These plants should be supervised by the state—I don't know just what would be the easiest way to finance it—but I think it would be an excellent thing.

President Wallis: I want to ask the indulgence of the convention to tell you what Idaho has been accomplishing in meat inspection. We have a law there that will not permit the opening of any slaughterhouse without the state first inspecting it and so we require the plans of any contemplated slaughterhouse to be submitted to our department. They are inspected and the license based upon the number of animals slaughtered each week. We then protect the sanitary condition of the meat by requiring special places for the different animals. And we will not permit the keeping of any animals, hogs, for instance, within one hundred feet of the place where they are slaughtered. The sheds and chutes must be clean and no animals can be kept in them for more than twelve hours. They must be made of cement and have hot and cold water, be fireproof, and the slaughtering must be done at certain hours of the day. The meat transported from the place of slaughter must have been thoroughly covered and protected from the dirt and dust of careless handling of the operatives. No meat, unless it is entirely covered first with paper and then with burlap, can be transported. Meat must not be exposed in the meat markets of Idaho. We don't permit any meat to be hung

in the shops. It must be kept in coolers or show cases. When it is sold it must be wrapped. You find meat in wagons covered from one end to the other and no part of it exposed and we have certainly, so far as sanitary precautions are concerned accomplished all that is possible in regard to the protection of our meat.

Now when it comes to the inspection of the animals, we have met a great problem. In a state like Idaho, with a scattered population, we could not pay and keep employed veterinarians to make this inspection but with respect to that we think we have solved the difficulty in the protection we have thrown around it after slaughter and the precautions we have thrown around the slaughtering.

Now we have three papers yet. We have Dr. Frary's paper with regard to the regulation of food supplied hotels, with particular reference to sanitary conditions involved in its preparation, a paper by Dr. R. E. Rose of Florida on "When Is An Orange Mature and Wholesome," a paper brought over from the program of Thursday for Section 8, and a paper by Dr. H. E. Barnard of Indiana on the "Wrapping of Bread, Its Chemical Composition, Bacterial Content and Flora of the Loaf," also a paper from the Thursday program of Section B. Both of these papers the executive committee were of general interest to the convention and should be read before it instead of in the section meeting. Now we would like to dispose of those three papers this morning.

I will call now on Dr. Frary of South Dakota to read his paper.

REGULATION OF FOOD SUPPLIED HOTELS, WITH PARTICULAR REFERENCE TO SANI- TARY CONDITIONS INVOLVED IN ITS PREPARATION.

DR. G. G. FRARY.

At first thought the inspection of food supplies in hotels and restaurants might seem an insignificant part of the work of the food inspector, and, in fact, it is my belief that in many states this side of the work has been largely overlooked or delegated, along with other phases of hotel inspection, to fire marshals, insurance departments, or specially appointed hotel inspectors. Except in rare instances these latter officials devote their attention principally to the details of construction in buildings used, with special stress on means of escape from fire. When we consider the fact that there are in this country more than 400,000 commercial travelers who take not less than four-fifths of their meals in hotels and restaurants, and when we consider that not less than three times this number of other persons obtain their food at such places, the problem becomes comparable with that of inspecting the food supply for a city the size of Philadelphia, only vastly more difficult because of the far greater number of places distributing the food. Inspection of the city food supply involves a number of very large distributing houses and several hundred smaller stores where foodstuffs are sold mostly in sealed packages and almost wholly in a raw or unprepared condition. Inspection of hotels and restaurants involves the inspection of thousands of kitchens and dining rooms where the inspector must examine food ready to serve and scrutinize with great care all conditions under which this food is prepared for serving.

Just as the problems met in inspection work in cities are different from the problems to be solved by the inspector who works largely in smaller communities, so are the problems of inspection in the large metropolitan hotels different from those encountered in smaller establishments. South Dakota is an agricultural state having no large cities and but two small ones with over ten thousand inhabitants. Consequently, ours is the problem of the small hotel and restaurant. Therefore, what I shall say applies particularly to conditions as we have found them in a state having a large number of communities of small population and practically no cities. The slogan, "Clean Food," which we so often hear throughout the land today applies with double force to conditions in hotels.

The greater part of the food which we, as food control officials, so insistently demand dealers to protect from dust, dirt, flies and all other contamination, is looked over carefully by the housewife, cleaned and cooked before it is ready to be eaten. The food which we purchase in hotels (and I shall use the one word as including restaurants and similar establishments), is served to us ready to eat. We cannot enjoy a meal in such a place with the degree of satisfaction that comes from the assurance that a painstaking mother, wife or sister has prepared that which we eat. Here lies the reason for the greater responsibility which rests upon the hotel proprietor, however lightly in far too many cases I should dislike to say. The idea that almost anything, from a piece of inedible "steak" to a dish of hash made from the leavings of the previous dinner, is good enough for the boarder is, I am quite certain, fast disappearing. But the knowledge that cleanliness is of paramount importance in the hotel kitchen is not half enough known. There ought to be a law prohibiting people from engaging in the hotel business until they are able to distinguish between cleanliness and semi-filthiness. Fortunately, most of those in the business at present would survive under such a law, but the thinning out would be sufficient to noticeably increase the income of those remaining.

In the inspection of hotels especial attention is given the



DR. G. G. FRARY, Food and Drug Commissioner, South Dakota.

kitchen and all surroundings. Basements and cellars must be carefully searched for evidence of decaying food supplies, improper sewer connections, ventilation and light. This part of the establishment must be kept free from all sources of foul odors which might taint the food in the kitchen above. The yard, if there be one, in the rear of the building should be kept free from accumulations of rubbish, ashes, garbage or any other material which may harbor infection or afford bait or breeding place for flies. On small towns which have no sewers particular care must be taken to see that no slops or waste waters of any kind are emptied within a safe distance of the kitchen. Screens should be required in all kitchen and dining room doors and windows. Plenty of ventilation is essential and it should include an ample hood over the stove or range. Floors in kitchens should be of good material and kept clean. Plenty of cupboards and shelves should be pro-

vided so as to leave no excuse for carelessly allowing boxes and other open containers of foodstuffs on the floor. The floor should be kept free from all such containers and all other materials except the necessary furniture so as to permit of easy cleansing to the very corners. One sign of carelessness is the accumulation of scraps of food in the cupboards and refrigerators and lack of cleanliness there. We insist that especial care be given the refrigerator to keep it clean, and we endeavor to show proprietors the need for constant watchfulness of the condition of all utensils used in the preparation of food for the table. Far too many persons employed in kitchens have no idea of the value of boiling water as a cleansing agent and its proper use in washing and rinsing dishes. Probably none are here who have not all too many times sat at table in hotels and restaurants and been served with greasy silverware and plates on which one could easily write his name with the finger tip. When you stop to think of the pan or tub of lukewarm water through which those dishes passed and the second receptacle of somewhat thinner water in which they were rinsed—if indeed they were rinsed at all—the feeling of hunger somehow vanishes. If we can arouse an appreciation of the value of clean boiling water for rinsing, not alone table dishes but also all cooking utensils and all surfaces with which foods are likely to come into contact, we will have done much.

Then, the persons employed in the kitchens and dining rooms are a very important factor. If it is advisable to prohibit persons afflicted with disease from working in bakeries and similar places, certainly the same rule should apply to help in hotels. Here much food goes in an uncooked condition directly from the kitchen to the stomach of the guest. Personal cleanliness on the part of employes is absolutely essential. To this end proper facilities must be provided. Lavatories, individual towels, and clean aprons should be furnished without stint. Too often the common towel in a condition to vie with the printshop towel is used promiscuously by kitchen help. A separate room or rooms should in all cases be provided with toilet facilities so that no street clothes or clothes of any sort need hang in the kitchen.

As the dining room is necessarily open to guests much attention is usually given it to make it attractive. It is also in most cases clean. In the cheaper hotels and restaurants inspectors sometimes find old, cracked dishes in use on the table. The cracks afford lodging place for multitudes of organisms, especially where the dish washing is carelessly done, and such dishes should be destroyed.

The questions of adulteration and substitution in foods in hotels and restaurants are much the same as elsewhere. Substitution is perhaps more easily practised here than in a store. The truth should be told both by menu cards and waitresses regarding the foods served. If maple syrup is offered it should be genuine. The same applies to trademarked foods, or well known brands, such as Cream of Wheat, Jones' country sausage, etc. Bottles containing catsup or other condiments or sauces and bearing a manufacturer's label should never be refilled with other products. It has been said that chicory is often substituted in whole or part for coffee at public eating places. We have recently examined in our laboratory some thirty-five samples taken from coffee urns, or from cups as served at table, in hotels, and restaurants in different parts of our state and have been able to find no evidence of chicory. It is no doubt true that low grade coffees are used in many instances, and the use of chicory may be prevalent in some sections of the country. Where any such substitute is used, whether in case of coffee or other food, its use should be declared on the printed bill of fare or, where these are not provided, a card should be conspicuously displayed on the wall, stating the nature of the substitution practiced.

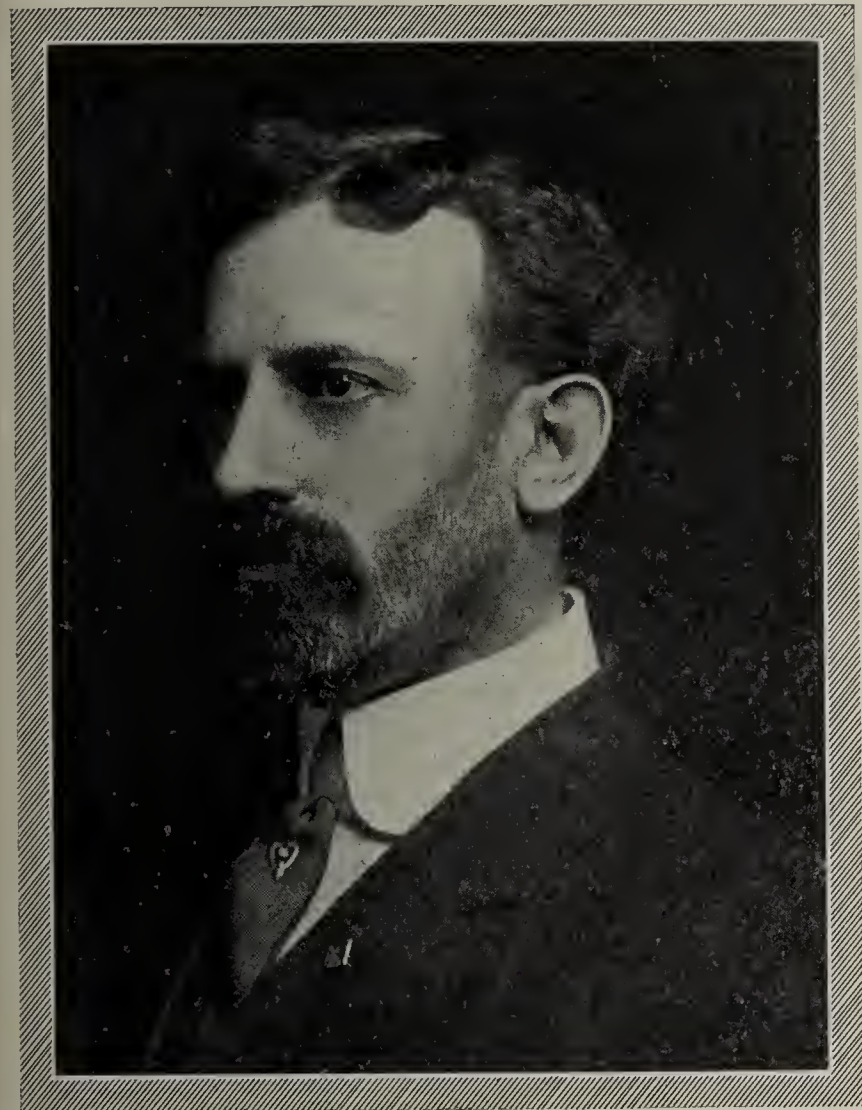
It is not my belief that substitution is as widespread as it is thought by some to be. This is a question which we are studying more fully during the current year.

President Wallis: The gentlemen designated to lead the discussion on this paper, Hon. C. E. Harman of Nebraska and Hon. H. F. Potter of Connecticut, are not present and so all the discussion, if there is any, will have to come from the body of the convention.

Well, if there is no discussion we will not allow the time to go to waste any longer. We will call on Dr. Barnard now to read his paper on the "Wrapping of Bread."

There are several papers belonging to Section B that are going to be read before the whole convention because of their general interest, this arrangement being made in the executive committee meeting last night, and Dr. Barnard's paper is one of those.

Dr. H. E. Barnard: This paper on the wrapping of bread is a study carried out in our laboratory during the last year.



DR. H. E. BARNARD, Food and Drug Commissioner, Indiana.

THE EFFECT OF BREAD WRAPPING ON THE CHEMICAL COMPOSITION OF THE LOAF.

By H. E. Barnard and H. E. Bishop.

With the passage of sanitary food legislation and the appreciation by both manufacturers and consumers that the production of clean food is even more important than the prevention of sophisticated food, has arisen the demand for the protection of bread and bakery products between the oven and the home. Those who are familiar with the facts admit, without question, that the loaf as it leaves the oven is practically sterile both in the interior of the loaf and on the surface.

In the process of baking, the interior of a loaf of bread is raised to nearly 100° C. and at the same time is filled with moist steam, while the outside is subjected to a temperature of about 200° C. Under such conditions yeast cannot live. Most bacteria will not resist prolonged steam heat and all bacteria on the outside of the loaf are unquestionably¹ destroyed.

Roussel² has observed that during baking the temperature of the interior of the loaf reaches 101-103° C., and that of the

crust 125-140.5° C. This temperature is somewhat higher than that reported by Mallett,³ who found that the interior of the loaf did not get higher than 100° C. and usually ran lower, even as low as 92° C. Likewise in a series of determi-

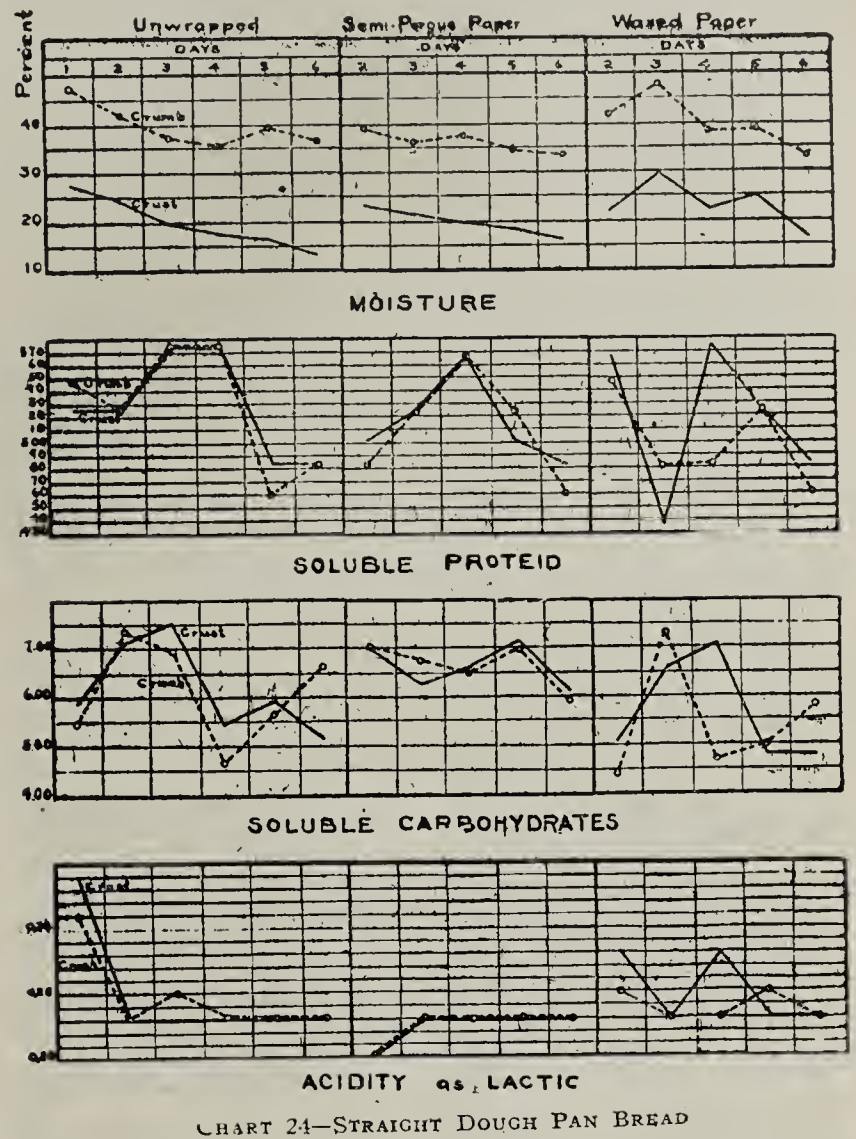


CHART 24-STRAIGHT DOUGH PAN BREAD

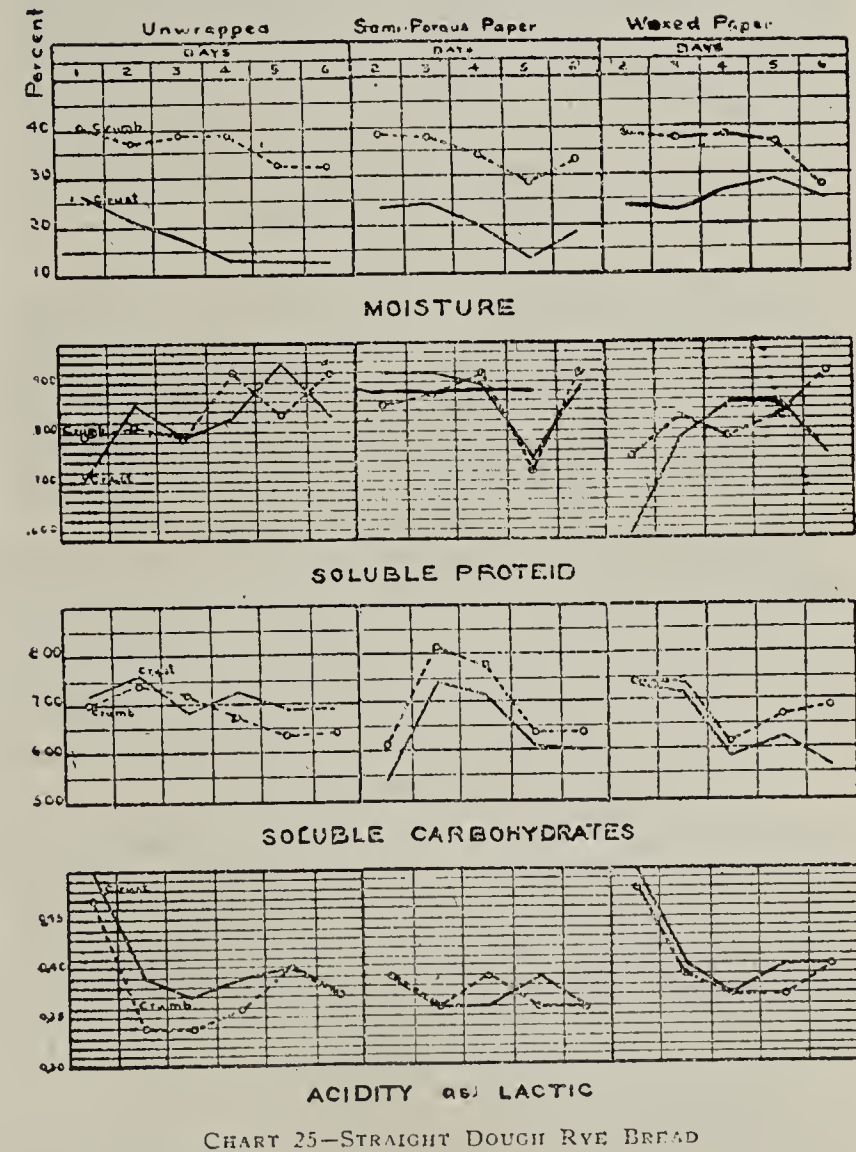
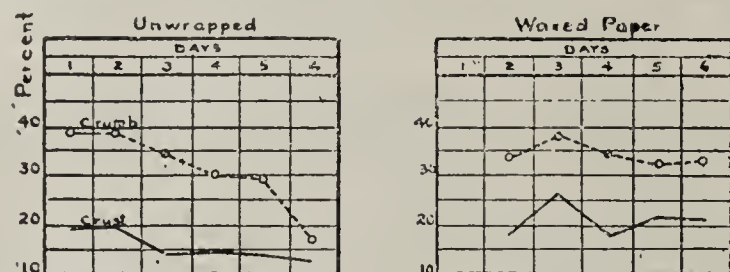


CHART 25-STRAIGHT DOUGH RYE BREAD

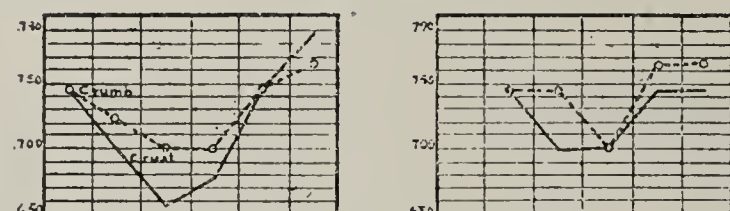
¹Golden Proc. Ind. Acad. Sci., 1892, 46.
²J. Roussel, Univ. Paris, Rev. Intend. mil., 20, 122-31.

³Chemical News, Nos. 1515-1516.

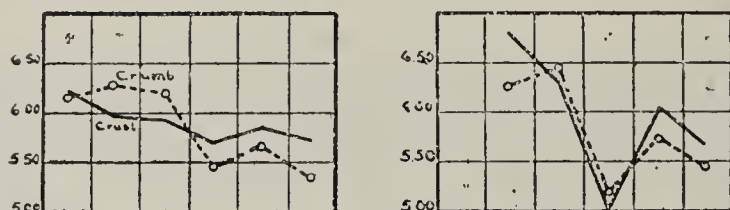
nations of the temperature of the interior of the loaf reported in the *Journal de Pharmacie et de Chimie*,⁴ it is shown that



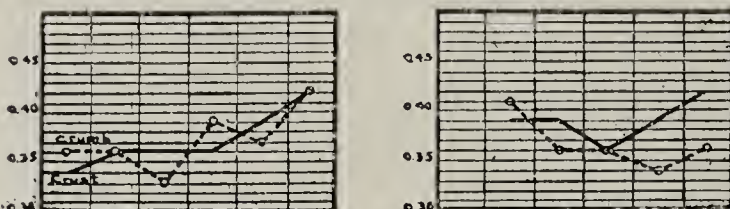
MOISTURE



SOLUBLE PROTEIN

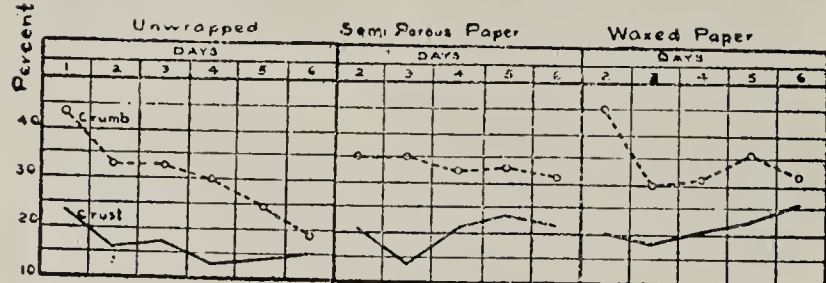


SOLUBLE CARBOHYDRATES

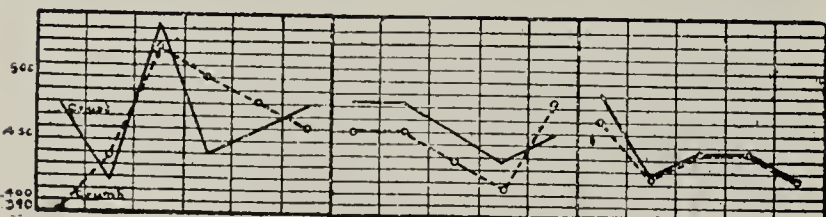


LACTIC ACID

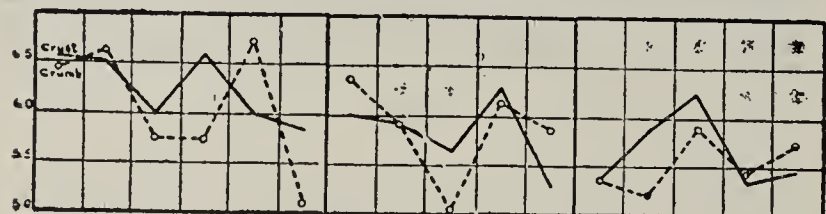
CHART 26—SPONGE DOUGH RYE BREAD



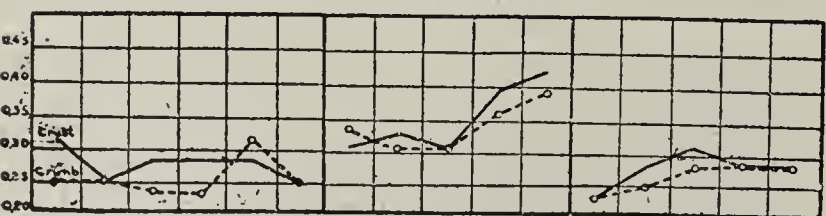
MOISTURE



SOLUBLE PROTEIN



SOLUBLE CARBOHYDRATES



LACTIC ACID

CHART 27—STRAIGHT DOUGH VIENNA HEARTH BREAD

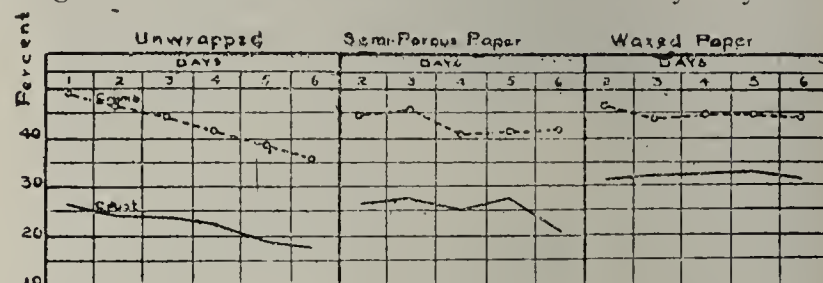
the temperature of the interior of the loaf as it leaves the oven is between 97° and 100° even after the baking has con-

tinued forty minutes. These temperatures are deemed sufficiently high to kill pathogenic bacteria but not as a rule the spores, except in the crust.

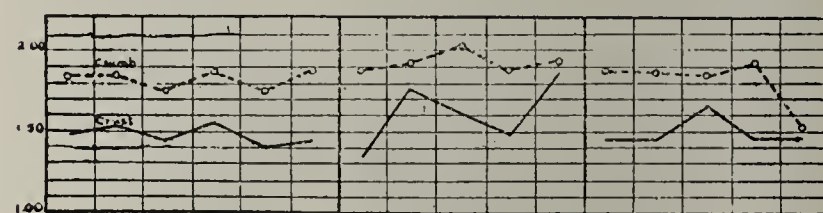
Numerous authors have pointed out that unprotected bread acquires a bacterial flora frequently very extensive, both as to variety and number.

Sadtler, in his report on bread wrapping to the National Association of Master Bakers, shows that the colon bacillus was present on the surface of seventeen per cent of unwrapped bread samples examined and that in addition to this number twelve and a half per cent showed the presence of such large numbers of bacteria as to be classed as of doubtful quality. On the other hand, samples of wrapped bread showed relatively low bacterial counts and the presence of no pathogenic organisms.

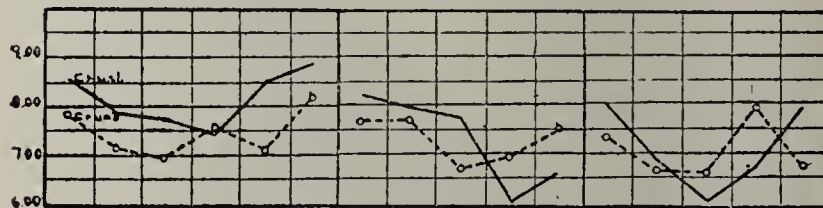
In addition to the necessity for keeping bread in a condition suitable for food, it must be protected from the development of so-called bread diseases caused by microorganisms, all of which, with the exception of ropery bread, are of exterior origin. The spores or bacteria get into fissures in the crust and grow from thence into the crumb where they may multi-



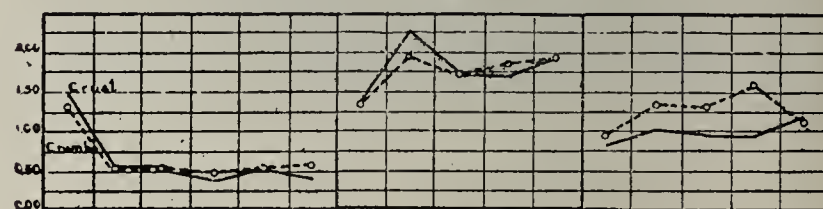
MOISTURE



SOLUBLE PROTEIN



SOLUBLE CARBOHYDRATES



LACTIC ACID

CHART 28—SPONGE DOUGH BOHEMIAN RYE BREAD

ply with extraordinary rapidity. It is true that the ordinary bakers' bread is rarely subject to disease since it is consumed before moulds or bacteria have an opportunity to grow within the loaf.

The common green mould, *penicillium glaucum*, the spores of which are ever present in the air, sometimes develops quickly on the crust of bread which is placed in damp and mouldy receptacles. As in the case of bacteria, the best precaution against mould fungi is to place the bread at once on removing it from the oven in a cool, dry and airy place and keep it there.⁴

Because of the desire of the consumer for fresh bread, that is, bread having a peculiar quality of flavor and texture observed in bread recently drawn from the oven, bakers follow the practice of returning to the shop all bread left unsold at the end of a period varying from one to two days. Such bread is called second day bread and is described as stale or half stale, although as a matter of fact, it is still entirely palatable and nutritious.

When bread is returned to the bakeshop it loses its value for human food and is finally disposed of as stock food, or in some instances, it is in part converted by suitable methods into sugars which are incorporated in the doughs for other bakings.

⁴Journal de Pharmacie et de Chimie Series, 5, 27, p. 16.

⁴Stiegeler, "Pure Products," 3, p. 464.

The loss to the baker occasioned by the return of loaves is so great that a study of the reasons producing staleness or half staleness, and methods by which this condition may be avoided is of importance.

Katz⁵ has studied the change resulting in staleness, and has reached the conclusion that there exists within the crumb of bread a physio-chemical equilibrium; at a temperature between 50 and 100° C., normal fresh bread is the stable form, while at room temperature, 0 to 25° C., stale bread is the stable form. This observation is the more readily understood in the light of our present knowledge of colloidal chemistry, which has taught us that bread is a starch colloid, that is, that the starch granules composing the crumb are colloids which hold a considerable quantity of water in combination.

Birmbaum⁶, long before the development of the chemistry of colloids, called this condition "fixation" of the water. Fresh baked bread, as is shown in the accompanying charts, contains much more water in the interior than in the crust of the loaf. The interior crumb is in a perfect colloidal condition with a rather high moisture content, but as the bread grows old the ratio of the water content between crust and crumb is changed, the "fixation" water of the crumb leaving it to be absorbed by the relatively dryer crust.

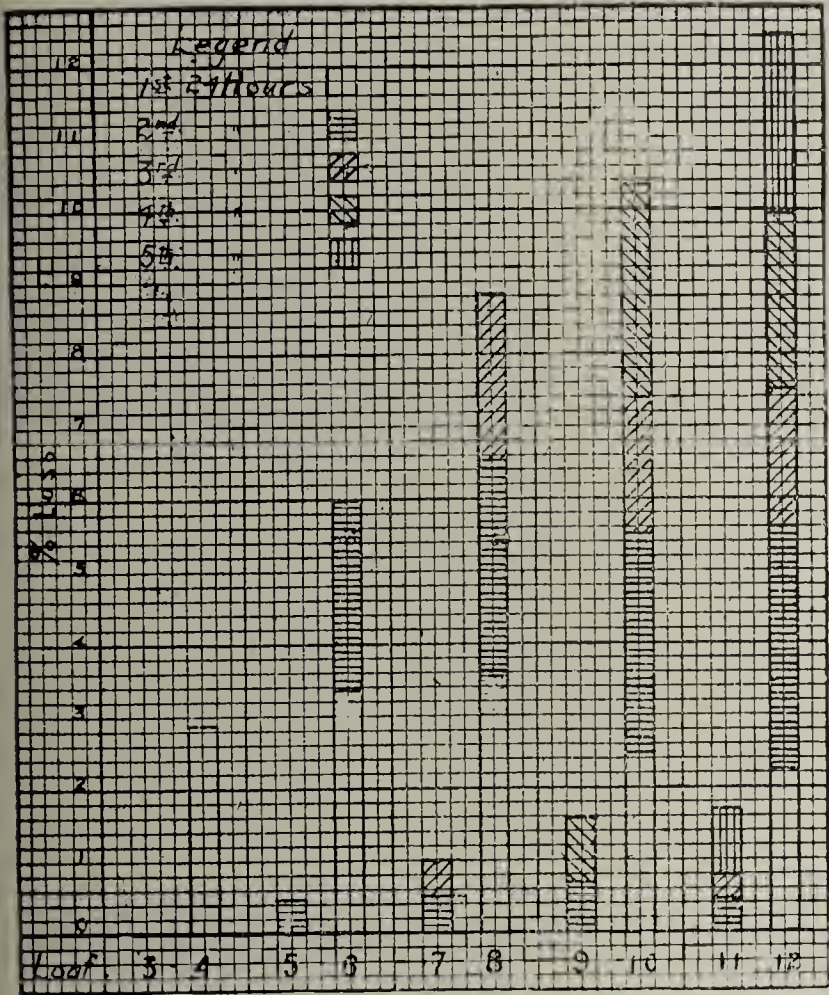


CHART 29—DAILY LOSS OF MOISTURE
SET C—STRAIGHT DOUGH PAN BREAD

Odd numbered loaves wrapped in paraffin paper
Even numbered loaves unwrapped

Boussigault⁷ studied the distribution of moisture and observed that by heating the crumb to 70° C., it became, in every respect, like fresh bread.

Bibra⁸ confirmed Boussigault's observations but pointed out that when the water content falls below 30 per cent, heating does not suffice to remove the staleness. He observed that when the per cent of water falls below 30 per cent if the bread is immersed in water for a few seconds and then heated to about 80° C., it is then rendered fresh. Bibra, however, is inclined to regard the changes producing staleness as due to some change in the form in which the water is combined in the substance in the bread. Fresh bread, he suggests, contains water chiefly in the uncombined state, but on keeping, the moisture content gradually enters into chemical combination. As soon as this process is completed the bread is perfectly stale. Upon heating, however, the union of starch and gluten with the water is severed and the bread becomes fresh provided sufficient water is present. This observation is of particular bearing on the practice of bread wrapping if it can be shown that the wrapped bread loses its moisture content more

slowly than the bread which is not protected against evaporation.

Interesting as these theories are, the baker has not yet been able to utilize the suggestion that stale bread may be rejuvenated by heating, because of the fact that the restored freshness is lost rapidly and that bread so treated very shortly acquires its original staleness.

Other factors unquestionably enter into the development of staleness. It has always been noted that stale breads, especially rye and bran breads, develop an increasing acidity with age. The free acid invariably present in bread is for the most part a product of fermentative action in the dough. The acid reaction is caused by two factors, free organic acids and

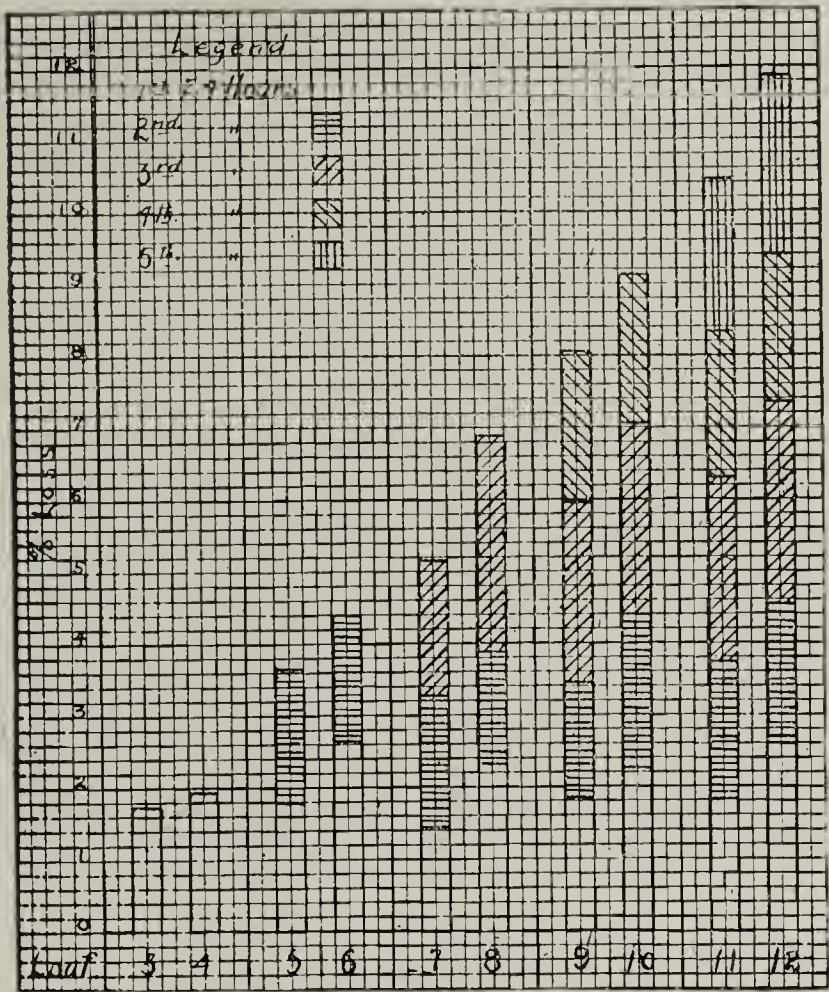


CHART 30—DAILY LOSS OF MOISTURE
SET D—STRAIGHT DOUGH PAN BREAD

Odd numbered loaves wrapped in semi-porous paper
Even numbered loaves unwrapped

acid potassium phosphate. The latter acidity results from the action of the free organic acid on the neutral phosphates contained in the flour. The organic acids present in bread are in part volatile as acetic and butyric acids and in part non-volatils as lactic and some of the higher fatty acids. Occasionally an increase of acidity takes place during the storing of bread which becomes slimy in consequence of the growth of micro-organisms, the spores of which survive the heat of the bake oven.

This microörganism, known as *bacillus mesentericus vulgaris* (Flügge) or the potato bacillus, is most commonly met with in bread rich in bran and having a high water content. The abnormally high acidity produced by this bacillus is hardly ever met with in white bread. Stiegeler⁹ quotes Lehmann to show that the volatile acids, chiefly acetic, constitute about two-thirds of the total acids contained in bread. Lehmann proposes the following qualification with reference to the acidity of bread:

100 GRAMS OF THE FRESH CRUMB REQUIRED.

1 to 2 cc. Normal alkali	Sweet loaf
2 to 4 cc. Normal alkali	Very slightly sour
4 to 7 cc. Normal alkali	Slightly sour
7 to 10 cc. Normal alkali	Fairly sour
10 to 15 cc. Normal alkali	Strongly acid
15 to 20 cc. Normal alkali	Excessively acid

It is to the interest of the baker and of the consumer alike to protect bread properly until it is consumed. In recent years this has been attempted by the use of bread wrappers or paper prepared for the purpose in which the bread is wrapped before it leaves the bakery. The use of the bread wrapper has received general public approval and in some cities and states has been made the subject of legislation. Many bakers

⁵Zeit. für Elektrochem., 19, 206, 663.

⁶Birmbaum's "Das Brotbacken Braunschweig," 1878, p. 255.

⁷Boussigault, Ann. chim. phys., [3] 36, 490.

⁸D. Getreidearten u. das Biot.

⁹Dr. H. Stiegeler, "Pure Products," 2, p. 183.

have found bread wrapping profitable both in the lessening of the loss due to stale bread and the increased approval of consumers, but on the other hand bakers have not viewed the adoption of the wrapper with favor, claiming that the use of the wrapper involves an additional cost for labor and wrapping material, the rearrangement of hours of labor at the bakery and further, that wrapped bread loses its flavor and becomes

It is further noted that the wrapping did not prevent the loaf from becoming stale after 36 or 48 hours¹².

In the same experiments, White determined the acidity of the same loaves. His results are summarized as follows: Bread made under cleanly conditions from a good quality of flour and yeast does not grow acid whether wrapped or not even after 108 hours. Bread wrapped while warm and bread wrapped while hot show an increase in the acidity of the inside portion of the loaf as compared with the crust. This increase amounts to 9 per cent in the case of the hot wrapped bread.

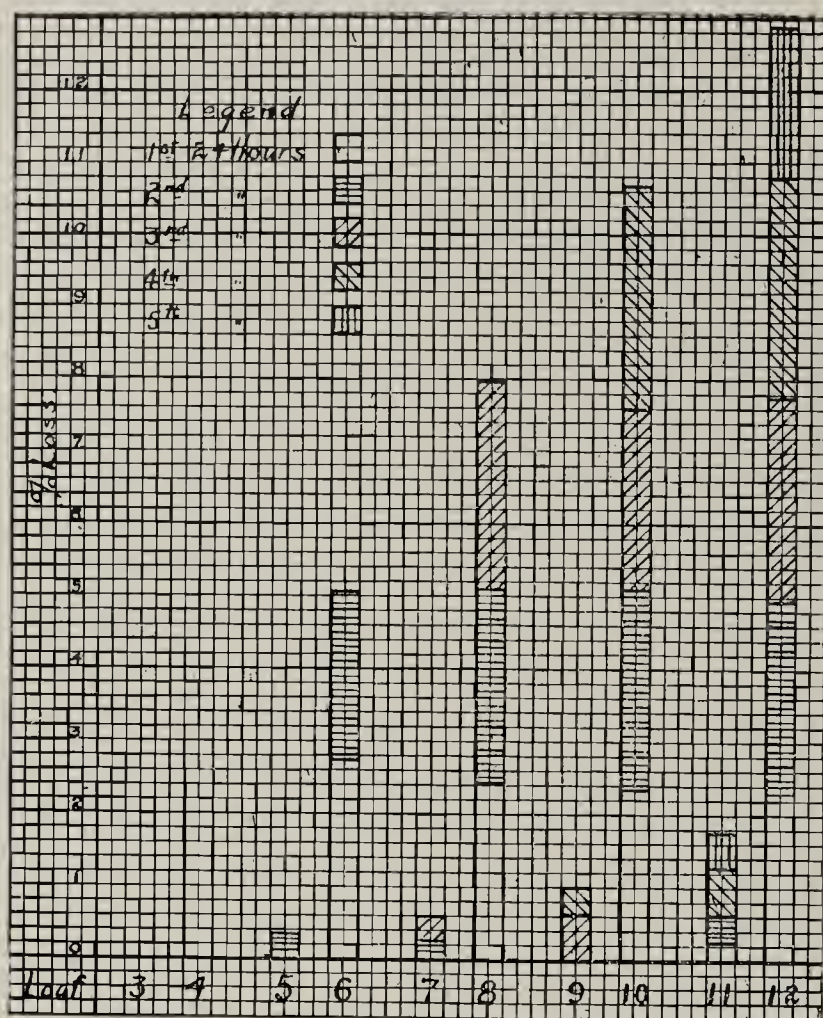


CHART 31—DAILY LOSS OF MOISTURE
SET E—STRAIGHT DOUGH PAN BREAD
Odd numbered loaves wrapped in paraffin paper
Even numbered loaves unwrapped

unpalatable more quickly than unwrapped bread. It is evident that if the wrapping of bread tends to injure the quality of the loaf the sanitary feature of the practice is not alone a sufficient argument for wrapping, since undoubtedly other methods of protection may be employed to prevent bacterial infection.

A number of investigations have been made of the effect of wrapping upon bread. The authors have studied the loss of moisture in the wrapped and unwrapped loaf and noted organoleptically the change in odor, flavor and acidity and the growth of moulds¹⁰.

They observed that the ordinary bakers' loaf wrapped in paraffined paper retained its good condition for three, four and in some cases, five days, while the unwrapped loaf became dry at the end of two days. The loaves in the porous paper wrapper dried out more rapidly than those wrapped in the paraffined paper but showed less tendency to sour. The wrapped Vienna and rye loaves lost their natural characteristics rapidly as the moisture in the center of the loaf became distributed throughout, thus injuring the flavor and texture of the crust which is considered the most desirable characteristic of such loaves.

Thomas¹¹ studied the practice of wrapping bread in paraffined paper, noting the condition of the loaf 18, 36, 60 and 108 hours after baking. The paper used was of such grade that the loaf was practically sealed from the air. The author notes that the loaves wrapped hot lost less moisture than those wrapped cool, and that they kept as well and were in better flavor and aroma. The unwrapped loaf lost moisture rapidly together with flavor and aroma. Another series indicated that the effect of placing the unwrapped loaf in a clean unclosed compartment was much the same as wrapping.

¹⁰Barnard and Bishop, Indiana State Board of Health, Rep. 1910, p. 324.

¹¹Special Bulletin Food Department, Gov. Agri. Expt. Sta., North Dakota, Vol. I, No. 26 (1910), 212.

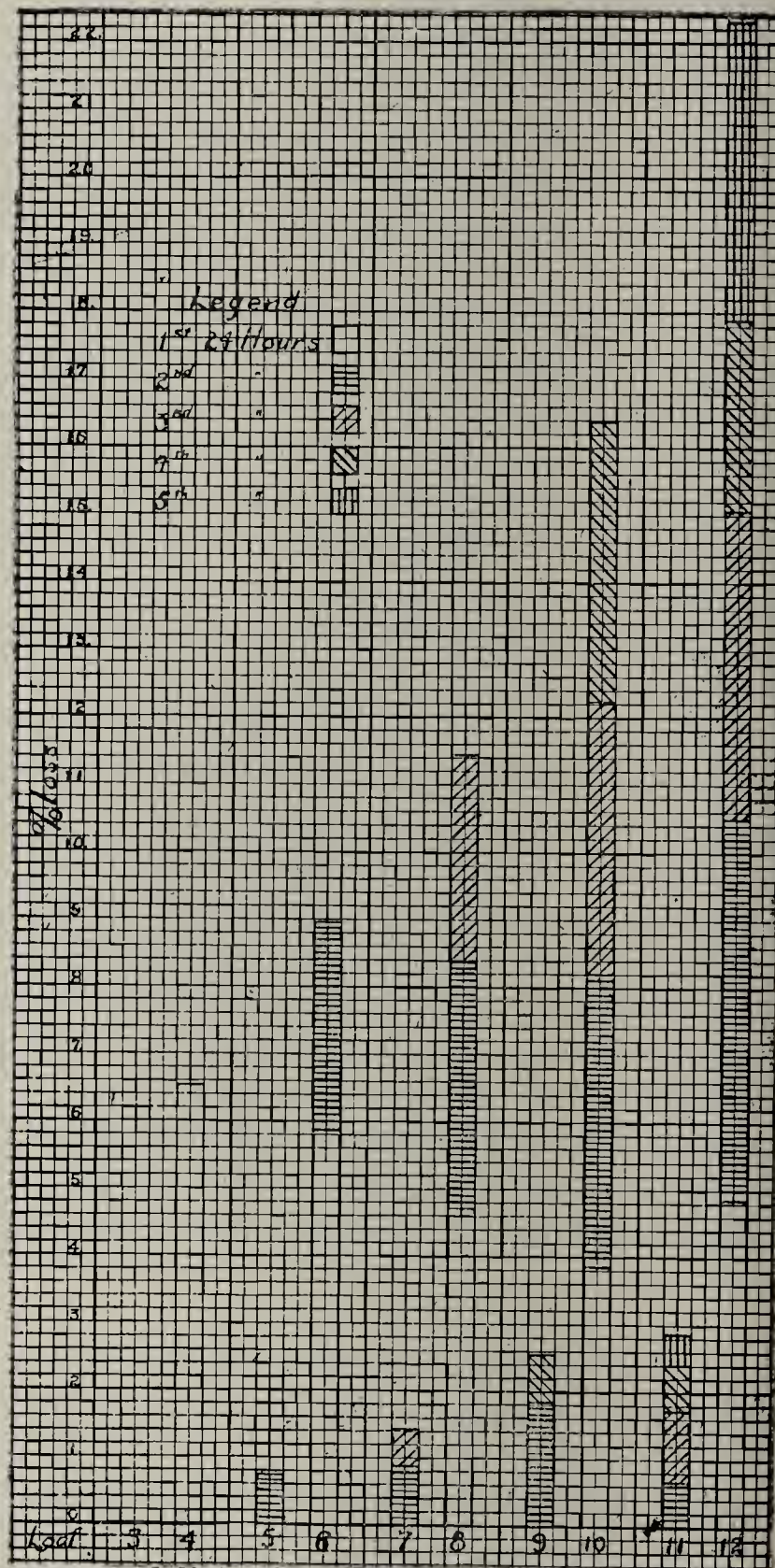


CHART 32—DAILY LOSS OF MOISTURE
SET F—STRAIGHT DOUGH RYE BREAD
Odd numbered loaves wrapped in paraffin paper
Even numbered loaves unwrapped

The change of distribution of moisture is accompanied by the development of a different odor and flavor to which bakers have applied the phrase stale and half stale. When in such condition the modern taste is not so easily satisfied as with the fresh bread. Accompanying this change of moisture content are slight chemical changes in the composition of the bread, namely, in the proteids, sugars and acidity.

These facts have important bearing on the question of bread wrapping. It is claimed by bakers who object to the wrapping

¹²White, Special Bull., Food Dept., Gov. Agri. Expt. Sta., North Dakota.

of bread¹³ that when bread is kept in a close, warm, moist atmosphere from the time of baking or when new, it is far more likely to develop sourness and mould, than if stored where it may cool rapidly and lose any excess of moisture. The arresting of the passage of the moisture through the crumb, and the concentration of the moisture in the crust is in every way injurious to the latter, and the arresting of the so-called normal loss of moisture will as well injuriously affect the interior of the loaf. They claim that milk bread and sour dough bread spoil more rapidly if the moisture is shut in and acidity develops.

These observations, which have become a positive expression of the belief of bakers adverse to wrapping, may, we believe, be proved or disproved by chemical means, and in an endeavor to arrive at the facts, we have studied the composition of wrapped and unwrapped loaves kept under normal conditions for a period of days.

The bread was obtained from the bakeries within three or four hours after baking. By this time it had thoroughly cooled. During the preliminary work the different loaves were analyzed at once. When the study of the wrapped loaves began eleven loaves were taken for each set. Beginning on Monday, five loaves were wrapped and six were left unwrapped. One of the unwrapped loaves was analyzed on Monday. On Tuesday one unwrapped loaf and one wrapped loaf were examined. On Wednesday the second unwrapped and second wrapped loaf were analyzed. This procedure was followed through the week or until the whole set had been taken care of.

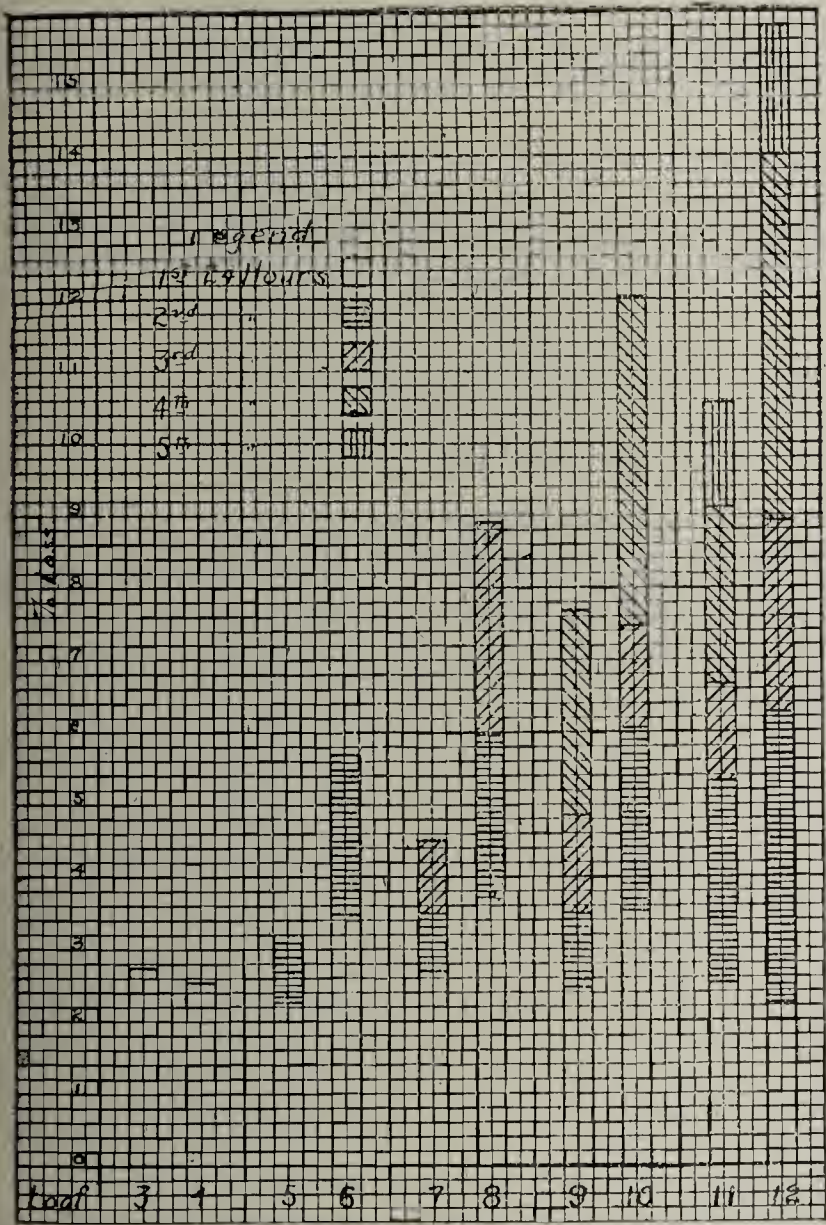


CHART 33—DAILY LOSS OF MOISTURE
SET G—STRAIGHT DOUGH RYE BREAD
Odd numbered loaves wrapped in semi-porous paper
Even numbered loaves unwrapped

This plan gave us a series of loaves of bread that had been unwrapped 1, 2, 3, 4, 5, and 6 days each and a series of loaves which had been wrapped 1, 2, 3, 4 and 5 days each.

Sets referred to as C, D, E, F, G and H were handled in this manner. For Sets I and J instead of analyzing a set of unwrapped loaves for every set of wrapped loaves we combined the series of wrapped loaves, using 16 loaves instead of 11 loaves, six were left unwrapped, five wrapped in paraffin

paper and five in a semiporous paper. This required the analysis of three loaves each day instead of two.

NORMAL COMPOSITION OF FRESH BREADS.

The data at hand showing the normal composition of freshly baked bread is scanty. Most of the material available refers to foreign breads or breads not commonly baked in this country. We have, therefore, felt it desirable to begin the work by establishing the standard composition of freshly baked bread. The following factors have been determined: moisture, ash, proteid, total solids, soluble solids, starch, soluble carbohydrates and acidity as lactic acid.

COMPOSITION OF BREADS STUDIED.

The breads examined were obtained at the local bakeries and the samples were part of their daily baking. An effort was made to select loaves as uniformly baked as possible. Only the regular brands were analyzed, no effort being made to cover the whole field of bakery products.

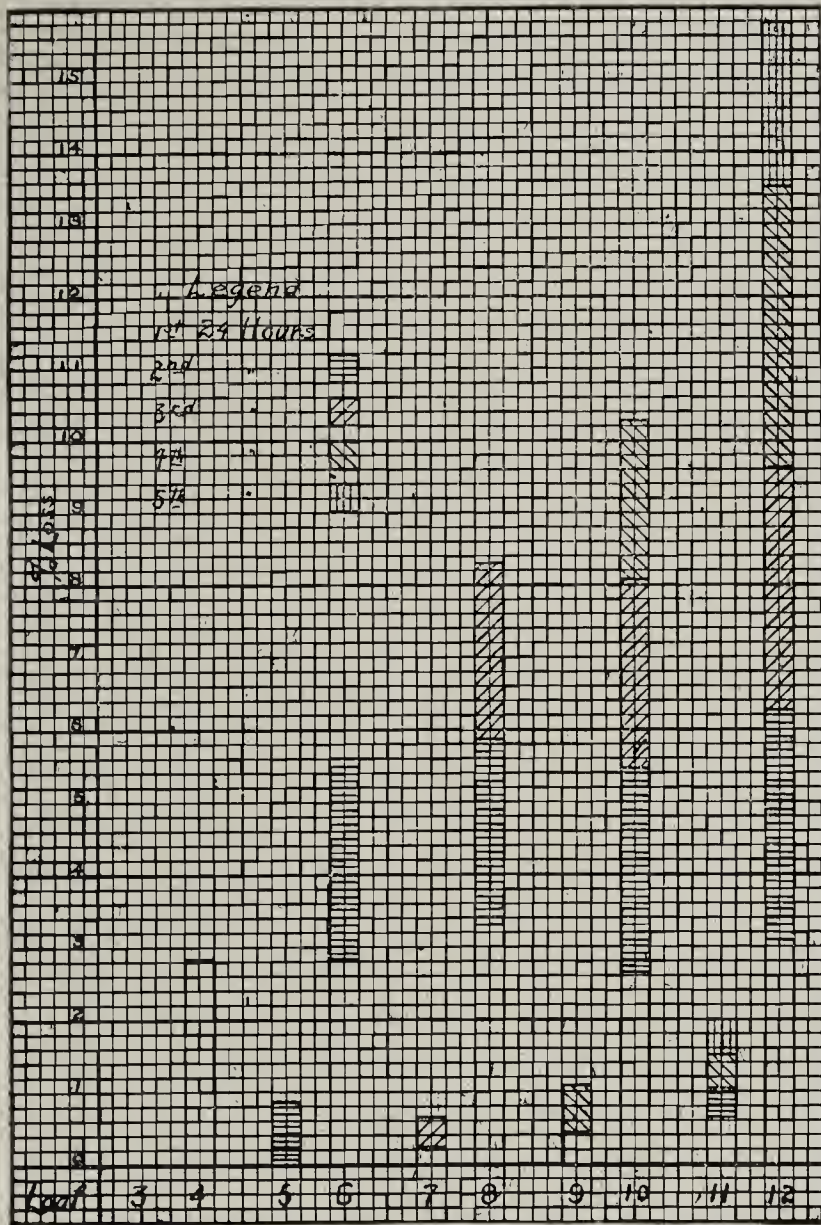


CHART 34—DAILY LOSS OF MOISTURE
SET H—SPONGE DOUGH RYE BREAD
Odd numbered loaves wrapped in paraffin paper
Even numbered loaves unwrapped

The first loaves examined were of the straight dough variety, baked in single pans and of the following ingredients: cottolene, sugar, salt, yeast, flour, and water. The mixing and most of the handling was done by machinery. The sponge dough hearth bread was made at the same bakery and contained salt, sugar, yeast, lard, flour and water.

In another set of experiments a somewhat different straight dough pan bread was used. This brand is baked as a double loaf. It is sold in a semiporous wrapper at ten cents. Its ingredients are the same as the loaves examined first but as a different formula is used the two breads are much different in flavor.

The straight dough pan bread was baked at another bakery. This sample contained malt extract, milk and cottonseed oil as well as the ordinary salt, sugar, yeast, flour and water.

The straight dough rye bread was made from a mixture of about 50 per cent rye flour and 50 per cent wheat flour together with salt and yeast. This gave a loaf of very much the same texture as the ordinary white loaf.

The sponge dough rye bread was made from a rye flour

¹³Sadtler, "Rep. of Bread Wrapping."

mixture containing about 50 per cent rye. A portion of the dough from the day before was added, together with some fresh yeast to get the raising power. No shortening was used and salt only added to the mixture. The texture of the crumb was quite similar to the ordinary white loaf of bread.

The Vienna loaf was a very light porous loaf with the characteristic crust. It was made from a blended wheat flour with cottonseed oil, salt and yeast.

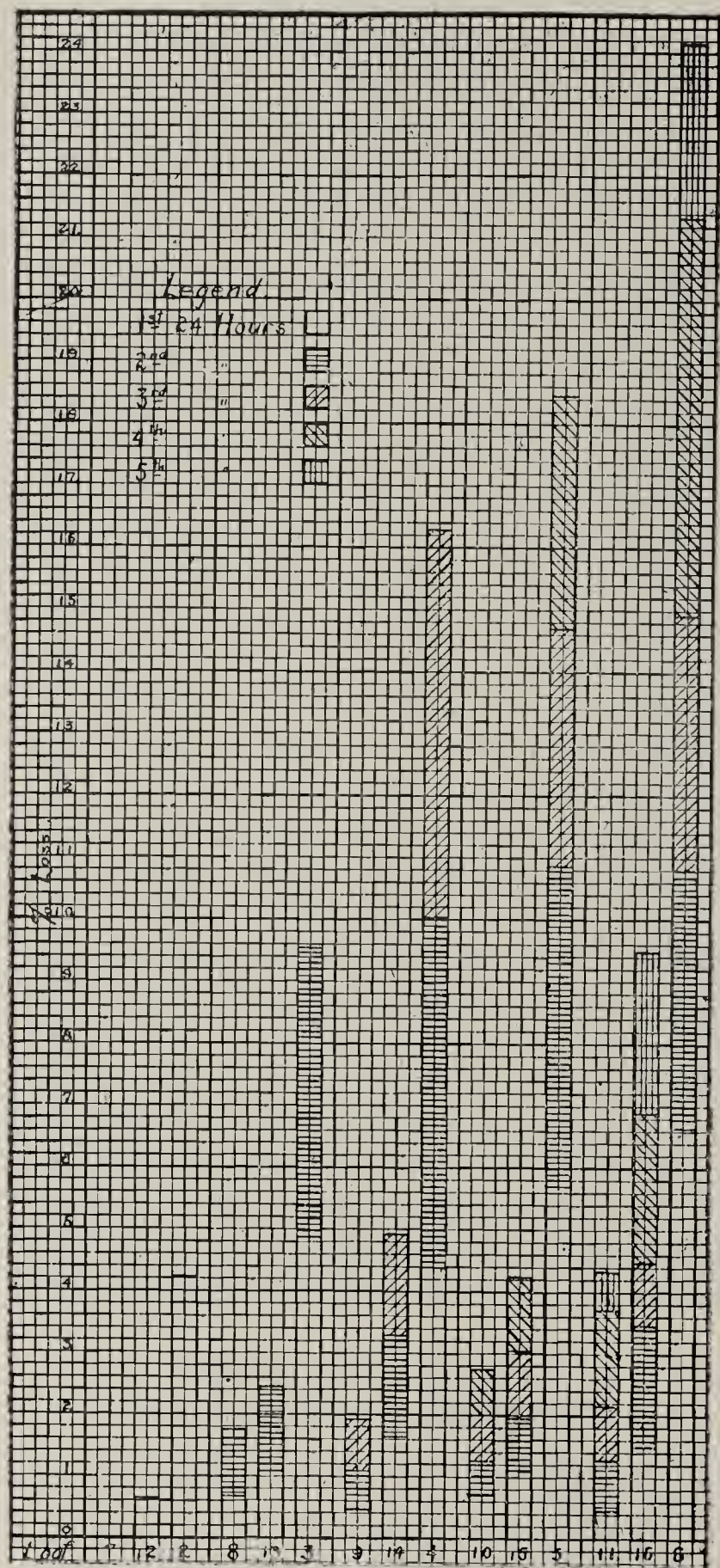


CHART 35—DAILY LOSS OF MOISTURE
SET I—STRAIGHT DOUGH VIENNA BREAD

Loaves 2, 3, 4, 5, 6—unwrapped
Loaves 7, 8, 9, 10, 11—wrapped in paraffin paper
Loave 12, 13, 14, 15, 16—wrapped in semi-porous paper

The Bohemian rye was from the same shop as the Vienna bread. This rye was very different from the usual rye loaf. It was made from a black rye flour with about 5 per cent wheat flour added. No shortening was used. The leavening agent was a mixture of sponge and a very little fresh yeast. A very small quantity of salt was added.

METHODS OF ANALYSIS.

One of the difficulties incident to this investigation was the taking of proper samples. Preliminary investigations determined the fact that ordinary methods of sampling were not

practical since the loss of moisture during preparation was so excessive as to invalidate the analytical results. The following method of procedure was finally employed with success: A loaf was divided crosswise and the crust separated from the crumb by taking off the outer layer in a slice just thick enough to include the browned portion. The crust and crumb were then broken in large pieces and immediately dried to a water free condition in an oven at a temperature of 98° C.

The drying, which was usually completed at the end of 12 hours, left the bread in a slightly browned, granular condition which was then reduced to a fine powder by grinding and passing through a forty mesh sieve. The prepared samples were then placed in tightly stoppered bottles from which the samples were taken for analysis after redrying for an hour to remove water taken up during the process of grinding.

The chemical methods employed were in general those found in *Bulletin No. 107*, Bureau of Chemistry, Department of Agriculture, together with modifications of some methods suggested by Jago¹⁴.

The moisture content was calculated from the loss in weight of the samples as they were prepared for grinding. This gave a very close approximation to the correct amount as the samples were large and the time between the time of cutting and weighing was nil.

The total proteids were calculated from the nitrogen determined by the Gunning modification of the Kjeldahl method upon a one gram sample of the dried crust or crumb using the factor 6.25.

The total carbohydrate content was determined upon a one-half gram sample by digesting for four hours in a ten per cent hydrochloric acid solution and then determining the sugar by Fehling solution.

The ash was taken on a one gram sample by igniting at low redness over a free flame. The soluble factors were determined upon a solution of the crumb or crust prepared according to Jago on page 768, using 10 grams of the dry sample instead of 25 grams. The sample was added to 250 cc. of distilled water and shaken vigorously for five minutes, and then allowed to stand for 25 minutes, making 30 minutes in all. The clear portion was decanted into a filter without putting the insoluble portion on the filter.

The soluble proteid content was determined by evaporating 100 cc. of the above solution to small quantity directly in the Kjeldahl flask and then digesting as in the total proteid determination. The evaporation of 20 cc. of the solution gave the soluble solids.

Soluble carbohydrates were taken by heating 20 cc. of the solution, 30 cc. distilled water and 5 cc. concentrated hydrochloric acid at the boiling temperature for four hours and then determining the sugars with Fehling solution.

The acidity was determined by titrating 20 cc. of the solution with N/20 sodium hydrate and multiplying by the factor 0.05625 which gave per cent acidity as lactic acid.

The starch content was calculated by subtracting the soluble carbohydrate factor from the total carbohydrate factor and converting the result by the starch factor 0.9.

THE CHEMICAL DATA ON WRAPPED AND UNWRAPPED BREAD.

STRAIGHT DOUGH PAN BREAD.—The moisture content of all the straight dough pan breads in the series dropped off uniformly both in the crust and crumb throughout the experiment as shown in Charts Nos. 29, 30 and 31 inclusive. At the end of the sixth day the moisture content of the unwrapped loaf was a little higher than in the loaf wrapped in the semi-porous paper. In no case was there any evidence of transference of moisture from crumb to crust, the moisture content, as shown in the graphic curves (see Chart No. 24) decreasing in the same proportion in the various loaves from day to day.

The total proteid content in all the loaves show no variation throughout the experiments.

The soluble proteid showed an increase on the third and fourth days in the case of the unwrapped and semi-porous paper wrapped loaves, and a sharp decrease on the third day in the loaf wrapped in the waxed paper. This decrease was followed on the fourth day by a decided increase in the soluble proteid content of the crust of the waxed paper loaf. After the fourth day the soluble proteid content fell off sharply until the end of the experiment. There is no evidence of appreciable change in the gluten content which would be manifested by an increase of soluble proteids except that observed in the case of the unwrapped and semi-porous paper wrapped loaves, and in these cases the change is not sufficiently great to warrant the drawing of definite conclusions.

¹⁴Jago, "The Technology of Bread Baking," W. & W. C., 1911.

The soluble solid contents do not vary throughout the experiments.

The soluble carbohydrates contents vary so irregularly as to be of no real value. An important fact to be noted is that such change as was observed takes place uniformly both in the crust and crumb.

The starch contents do not vary greatly throughout the experiment.

The acidity content dropped off markedly in the case of the unwrapped loaf on the second day and from that time continued without change until the sixth day.

The acidity of the loaf wrapped in semi-porous paper remained practically constant from the first to the sixth day. The acidity content of the waxed paper loaf decreased slightly on the third day and showed a slight increase in the crumb, on the fourth day followed by a decline at the end of the experiment. The ash content remained unchanged.

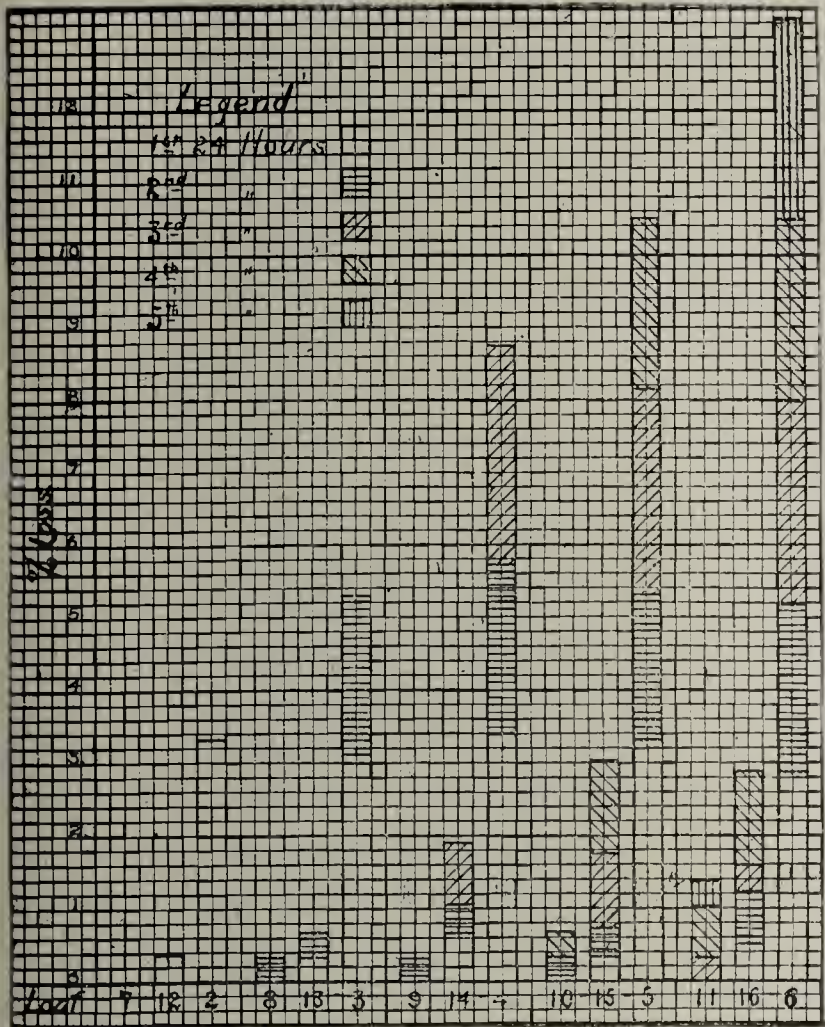


CHART 36—DAILY LOSS OF MOISTURE
SET J—SPONGE DOUGH BOHEMIAN RYE BREAD
Loaves 2, 3, 4, 5, 6—unwrapped
Loaves 7, 8, 9, 10, 11—wrapped in paraffin paper
Loaves 12, 13, 14, 15, 16—wrapped in semi-porous paper

STRAIGHT DOUGH RYE BREAD.—(See Charts 25, 32, 33).—The moisture content in the unwrapped loaf on the first day after baking was, crust 26.4 per cent, crumb 40.4 per cent. The moisture content of both crust and crumb dropped off regularly until the sixth day, when the respective contents were 12.5 per cent and 32 per cent. A duplicate set of studies showed the moisture content as follows: crust 3.3 per cent, crumb 41.5 per cent on the first day and 14.2 per cent and 28.6 per cent on the sixth day. The daily loss in moisture was more constant on this set than on the first set, although, as reference to the chart shows, the loss of moisture in crust and crumb paralleled each other throughout the experiment. The loaves wrapped in the semi-porous and paraffin paper contained the same moisture content at the beginning but lost water more slowly and at the end of the experiment were still relatively soft. No transference of moisture from crumb to crust is shown save in the loaves wrapped in the waxed paper where the moisture loss in the crumb was relatively greater on the fourth and fifth days than in the loaves wrapped in semi-porous paper.

The total proteid content calculated to a dry basis showed no variation throughout the experiments either in the unwrapped or wrapped loaves.

The soluble proteids varied slightly from day to day but neither the figures nor the plotted curves show so much uniformity of action. The increase in soluble proteids was

greater in the case of the unwrapped and paraffined wrapped loaf and less in the semi-porous paper.

The soluble solids content varied but slightly throughout the experiments.

The soluble carbohydrates content in general showed a slight decline toward the end of the period. On the third day an increase in soluble carbohydrates was noted in the bread in the semi-porous wrapper. Reference to the chart shows graphically the close parallel existing between the composition of the crust and crumb.

The total starch content varied but little throughout the experiment, the difference noted being due more to the fact that each day a different loaf was analyzed than to any change in composition due to aging of the loaf.

The acidity content instead of increasing daily in the case of the unwrapped and waxed paper is lower on the second and third days, increasing very slightly on the fifth day. Almost no change is observed in the acidity of the loaves wrapped in semi-porous paper. The acidity of the crust and crumb, as shown by the graphic chart, parallel each other throughout the experiment.

The ash factors are of little value, the variation observed being due unquestionably to the difference in composition of different loaves from the same baking.

STRAIGHT DOUGH VIENNA HEARTH.—(See Charts 27 and 35).—The unwrapped Vienna hearth bread showed a rapid decrease in moisture content, both in the crust and crumb, the loss in crumb moisture, however, being greater than in the case of the crust. The loaves wrapped in semi-porous paper showed a slight drop in the crumb and after the third day a slight relative increase in the crust, the moisture content of the crust, however, being the same at the end as at the beginning of the experiment. The moisture content of the waxed paper loaf showed a transference of moisture from crumb to crust on the second and third days, after that there being little change in composition.

The total proteid content showed no variation throughout the experiments.

The soluble proteid content on the third day showed an increase in the case of the unwrapped, but after that time a drop was observed. On the contrary, the soluble proteid content of the loaves wrapped in semi-porous and paraffin paper dropped uniformly both in the crumb and crust.

The soluble solids content remained unchanged through the experiments.

The soluble carbohydrates varied somewhat, the only uniformity of action being similarity of change in the crumb and crust.

The starch contents remained nearly constant throughout the experiment, the difference noted being due to the fact that a different loaf was analyzed each day.

The lactic acid remained practically constant in the unwrapped loaf and in the waxed paper loaf. In the semi-porous wrapper, however, a slight increase was noted on the fifth and sixth days.

SPONGE DOUGH BOHEMIAN RYE.—(See Charts 28 and 36, 26 and 34).—The moisture content of the unwrapped Bohemian rye breads dropped off uniformly from the first and the sixth days. There was no appreciable change in the moisture content of the loaves wrapped in the paraffin paper. The moisture content of the loaves in the semi-porous paper remained nearly constant in the crumb but dropped off slightly in the crust. But little transference of moisture from crumb to crust is noticed.

The total proteid content does not vary throughout the experiment.

The soluble proteid factor shows almost no change in the unwrapped loaf. It increases slightly in the semi-porous wrapped loaf on the second day, then falling off but reaching its highest figure on the sixth day. On the contrary, the loaves wrapped in paraffin paper showed practically no change until the sixth day when a slight falling off was observed in the crumb.

It will be noted that the soluble proteid content of the Bohemian rye bread is much higher throughout the experiments than in the case of the other breads examined.

The soluble solid and soluble carbohydrate and starch factors varied but slightly throughout the experiment.

The lactic acid acidity is high in the unwrapped loaf on the first day, falling off on the second day, and from there on showing no change. The loaf wrapped in paraffin paper shows practically no change during the six days. The loaf in the semi-porous wrapper shows but little increase of acidity on the third day and a falling off on the fourth day after which no change was observed.

BREAD WRAPPED HOT NOT STUDIED.

It has been shown by Jacobs¹⁵, the authors¹⁶ and others, that bread wrapped while warm becomes soggy and of unpleasant flavor. The experience of bakers confirms these observations. In view of this admitted fact the authors have not felt it necessary to investigate the condition of bread wrapped fresh from the oven and all experiments have been conducted on bread allowed to cool thoroughly, usually during three hours after removal from the oven.

KIND OF PAPER WRAPPER USED IN WRAPPING BREAD.

In these investigations the waxed or paraffin wrapper was a heavy paraffin paper which, as used, made an air-tight and moisture-proof package. The paper referred to as semi-porous was in part that used on the trade-marked "Holsum" bread and in part of the type furnished by Geo. W. Haffner. These wrappers, while affording satisfactory protection against dust and dirt, did not prevent the escape of moisture nor impair completely the circulation of air.

PHYSICAL APPEARANCE OF BREAD.

Both baker and consumer judge the condition of bread by its physical appearance, that is, its odor, flavor and character of crust and crumb. The odor and flavor of distinct types of bread are essentially unlike. The crust of different types varies greatly, some breads being most desirable when the crust is light, soft and porous, while other types are preferred because of the thick and impervious crust. In order to determine the effect upon the physical appearance of the bread, we have exposed, under ordinary conditions of keeping, loaves unwrapped and wrapped with paraffin and semi-porous wrappers, and have noted each day the condition of the crust, the odor, taste and the development of moulds.

Five types of bread were used in the study: (1) straight dough pan bread; (2) straight dough rye bread; (3) sponge dough rye bread; (4) straight dough Vienna hearth; and (5) Bohemian rye sponge.

In general, the results confirm our earlier observations, although the evidence of impaired condition in rye bread was not so great in this as in the earlier experiments.¹⁷ The straight dough pan bread (Sets C and D) developed a slightly stale odor on the second day, while the loaf in the paraffin wrapper was in excellent condition on the third day. The nutty flavor of the unwrapped loaf was about gone on the fourth day, while the wrapped loaf was still in fair condition.

Set "E" is a duplicate experiment with paraffin wrapped straight dough pan bread on bread obtained from a different source. In general the observations were the same as in Set "C."

The results on the straight dough pan bread in semi-porous wrapper were a little more favorable to the use of the wrapper than the paraffin wrapper. A very slight musty odor developed in the unwrapped bread on the fifth day. In the Vienna hearth straight dough studies, the unwrapped bread showed deterioration on the second day, the crust becoming increasingly hard and the crumb dry and tasteless. Where the bread was wrapped in the paraffin paper the crust softened on the second day, but the odor and taste of the crumb remained good, no deterioration other than the softened crust being observed until the fourth day, when the crumb was noticeably stale.

The samples wrapped in the semi-porous paper were but little different from those wrapped in the paraffin. It was noted that the sample on the fourth day did not have as good a taste and odor as the duplicate sample wrapped in paraffin paper.

The authors' observations on the Vienna breads do not fully confirm their earlier report, these experiments showing that the Vienna hearth straight dough bread keeps reasonably well in both the paraffin and semi-porous paper.

The straight dough rye bread wrapped in paraffin paper preserved its condition both as to crust, odor and taste until the sixth day. The unwrapped bread showed a hardened crust on the second day and but little change in the condition of the crumb or in odor and taste until the fifth day. The straight dough rye bread in the semi-porous wrapper developed a stale odor on the fifth day. The unwrapped sample on this day had a very hard and dry crust, although the odor was still good.

The samples of sponge dough rye bread wrapped in paraffin paper were normal on the fourth day. On this day the odor and taste of the unwrapped samples were not as good as on the second day. On the sixth day the wrapped sample had a

tough crust but the condition of the crumb, odor and taste was practically normal.

Samplés of wrapped and unwrapped Bohemian rye sponge dough were decidedly influenced by wrapping. A sour taste was noticed on the third day on the unwrapped samples and the crumb was dried out. The crust of the sample wrapped in paraffin paper softened on the second day and on the third day the loaf was moist and sticky and had a marked flavor. On the sixth day many mould colonies appeared on the crust, the crumb, however, being free from moulds. The loaf wrapped in semi-porous paper differed in no way from the loaf wrapped in the paraffin paper except that fewer mould colonies developed on the crust.

CONCLUSIONS.

I.—In general the chemical data confirms the authors' observations on the physical appearance of the wrapped and unwrapped loaves. Much of the chemical work shows no departure from established normals and the hundreds of analyses serve only to confirm each other. It is clear that the wrapping of bread, either in semi-porous waxed or paraffin paper retards the escape of moisture and tends to the preservation of the colloidal condition and physio-chemical equilibrium noted by Katz, the destruction of which results in staleness. The belief that the moisture of the crumb is imparted to the crust which thereby loses its crispness and becomes soft is not borne out by the results of the author's experiments. Reference to the graphic charts shows conclusively that in almost every case a loss of the moisture content of the crumb is accompanied by similar and almost exactly parallel loss of the moisture content of the crust. Observations to the contrary have perhaps been in error because of the usual custom of comparing the feel of the wrapped and unwrapped loaves on successive days, instead of comparing the texture of the crust of the wrapped loaf with the crust of a freshly baked loaf. The authors' conclusions as to the loss of moisture, while somewhat surprising, appear to be fully justified by the results of the numerous experiments.

II.—It has long been held that bread on keeping develops an increasing acidity which is customarily expressed as lactic acid. The work of White, above referred to, disputes this belief. The work of the authors shows conclusively that lactic acid acidity does not develop either in the unwrapped or wrapped loaf in the case of ordinary breads within six days after baking. A reference to the graphic chart clearly shows that the acid content remains almost constant, varying but little throughout the period during which the loaves were under observation.

III.—The use of semi-porous and paraffin wrappers does not injure the quality of the loaf after the third day. Up to that time the keeping quality both as to condition of crumb, flavor and odor is enhanced by the use of the wrappers. Unwrapped bread loses its freshness after the first day. But little difference is observed in the condition of the straight dough pan bread, straight dough rye, sponge dough rye bread and straight dough Vienna hearth bread. Bohemian rye sponge dough wrapped or unwrapped bread is not of satisfactory quality on and after the third day.

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Dr. H. E. Barnard: The conclusion which we arrived at is this, we found that the practice of wrapping bread with either semi-porous or paraffin paper, if not wrapped until three hours after baking, in no way injures the quality of the bread but that it lengthens the life of the bread to about three days as a com-

¹⁵B. R. Jacobs, Forecast, 1912.

¹⁶Barnard and Bishop.

¹⁷Barnard and Bishop, Indiana State Board of Health Report, 1910, p. 234.

mercial proposition. Whereas now bread is returned to the baker's shop after the first day, if it is properly wrapped it can be left for three days and the consumer will be just as well served as at present.

I have not reported here any bacteriological conclusions. This report has shown so conclusively that the wrapping of bread is not injurious that I think any further comments from me are unnecessary.

Mr. C. D. Howard of New Hampshire: In the legislature of our state during the 1911 session there was a special bill introduced providing for the wrapping of all bread. The bakers there are well organized and they succeeded in having that bill defeated but at the same time a general sanitary food law was passed and under that law we adopted a regulation requiring the wrapping of all bread and as soon as the bakers of the state learned of this regulation they declared they would fight the measure. We had the support of the leading baker of the state and also some of the Boston bakers and they began to wrap their bread. Meanwhile a test case was brought which eventually reached the Supreme Court, where a decision was issued sustaining the regulation. And ever since then we have had no trouble and our ruling is being fully complied with.

Dr. I. K. Phelps of the Bureau of Chemistry: I would like to ask a question dealing with the question from an economic point of view. The fact was brought out in the paper just read that the length of time for sale of the bread is extended by wrapping. That is a fact that has not been very widely brought out by other people or other evidence. The bakers have emphasized the fact that it costs more money to wrap bread and therefore they have, in some cases at least, lessened the weight of the loaf to compensate. I would like to ask Dr. Barnard if he has considered that fact—whether the length of time for sale added to the bread by wrapping makes up to the baker the extra expense of wrapping it—so that he could be held responsible for giving the same weight as formerly.

Dr. H. E. Barnard: That fact has been absolutely contradicted by investigations made by the authorities at Washington to determine the cost of living. You know that reports are frequently made as to the cost of the food supply in certain states. In studying the cost of bread it is the practice also to give the weight of the loaf or selling price and to state whether it is wrapped or unwrapped. It is a significant fact that in these studies made during the last two years the reports have shown that the wrapped loaf selling for five cents has weighed more than the unwrapped loaf. Furthermore, I would point out, as every Commissioner well knows, every loaf of bread is always wrapped before it gets home to the consumer. And it costs less to do that wrapping by machinery than for the grocer's boy to wrap it with his dirty hands after it has been hauled through town and handled by some dirty delivery wagon driver, and therefore the argument of the bakers that it costs money to wrap bread falls to the ground of its own weight. I don't think there is any economic problem in the discussion. The cost of wrapping is only a very small fraction of a cent per loaf, anyway.

Hon. Geo. L. Flanders: Why does the wrapped loaf weigh more than the unwrapped loaf? Is there any particular reason for that?

Dr. H. E. Barnard of Indiana: No. In New Orleans they make a larger loaf of bread than any other

loaf in the country. In Indianapolis they give a larger loaf than other cities I have visited in the West. But remember that the unwrapped and the wrapped loaf are probably collected and weighed the first day they are out. There is little loss of moisture in the first day it is out for the unwrapped loaf but after that there is a considerable loss.

I think it might be well to point out that a great many bakers are not in sympathy with the campaign for clean food and in certain cities, in order to destroy the growing sentiment in favor of wrapped bread, they have purposely wrapped an inferior bread and then said the wrapping injured the quality of the loaf because, they say: "See how inferior the wrapped bread is," and it is inferior but not because of the wrapping but rather on account of the fact that the baker himself has deliberately and with wilful intent wrapped an inferior bread for the purpose of influencing the consumer against wrapped bread.

Com. J. W. Helme: What machinery was used in the wrapping of the bread in the experiment?

Dr. H. E. Barnard: Some of it was wrapped by hand and some by machine—I don't know the name of the machine but it is a little device that the loaf slides through in such a way that the paper is wrapped around it and it is later sealed by hand labor. I believe there are a dozen machines to do the work. The labor problem is solved by the machinery.

Com. J. W. Helme: How is it sealed?

Dr. H. E. Barnard: By tying a string around the loaf.

Com. J. W. Helme: In Detroit we have one of the largest bakeries in the country and I believe the finest, and the proprietor told me that he had abandoned the use of machinery for wrapping and were doing it all by hand—perhaps he had a different type of machine but he complained that the paraffin odor was communicated to the bread and so that he had to abandon the use of machinery. They make 60 per cent of the bread consumed in Detroit and they have a very fine bakery indeed, and they are using hand wrapping.

President Wallis: If there is no further discussion of this paper we will hear the last number on the program, the paper by Dr. Rose of Florida, entitled, "When Is An Orange Mature and Wholesome."

Dr. R. E. Rose: This is a paper which is possibly not as interesting to most of the Commissioners present as it is to the California, Louisiana and Texas and Florida Commissioners, especially Florida and California. Since the production of oranges in the United States has become a large factor we have found certain conditions arise that made legislation necessary, both local and by the national government. The imposition of immature sour oranges that had been sweated to give them the necessary color has been great. It finally became necessary for the national authorities some years ago to issue a food inspection decision upon the subject, Food Inspection Decision 133, which most of you are doubtless familiar with. Unfortunately, while they declared it illegal to sell immature oranges there was no standard fixed by which to determine the immaturity. It was left entirely to the individual taste or prejudice of the inspector. We had no stick to measure it with.

The question of standards has been discussed rather freely this morning and I believe that every Commissioner here believes we ought to have a standard, possibly by grades because most of our products are

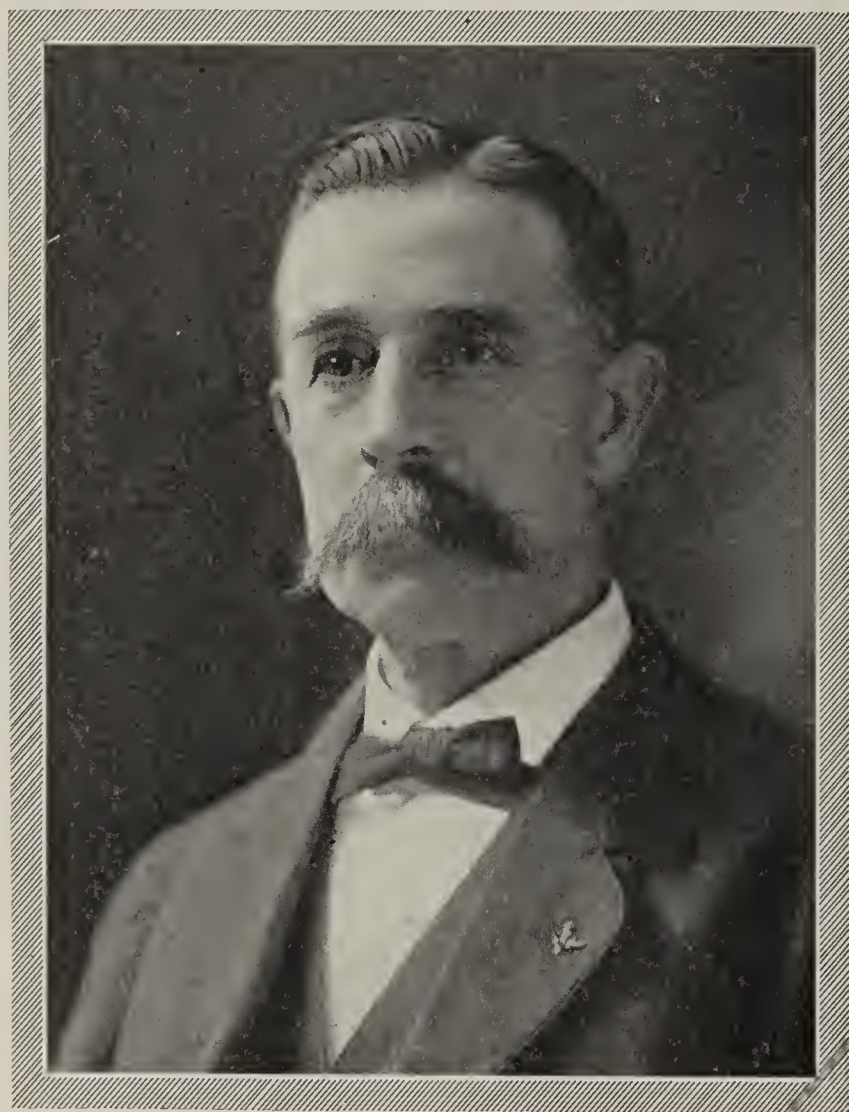
graded, and the government is already authorized to fix standards in certain products—wheat and grain—and our southern representatives will remember that we have authority to fix a cotton standard. It shows the necessity for standards in this country.

I have my paper in printed form, but I shall not attempt to read the entire paper. I have numerous copies of it here and also the studies upon which the conclusions were based. I brought a sufficient supply with me so that they can be distributed and so that you can see the basis upon which we draw these conclusions.

"WHEN IS AN ORANGE MATURE AND WHOLESOME?"

R. E. ROSE, State Chemist of Florida.

Gentlemen: This question, "When is an Orange Mature and Wholesome?" has vexed the grower and consumer of oranges for many years. Since the production of oranges has reached such magnitude in Florida, California, Louisiana, Texas, and other Gulf States, it has become acute.



DR. R. E. ROSE, Chief Chemist, Florida.

Domestic citrus fruit growing and marketing now employs immense capital, estimated at \$300,000,000 to \$400,000,000, in oranges, grapefruit, and lemons, producing a crop averaging \$35,000,000 annually.

The rapid increase in citrus production in the United States is not generally known. The increase in Florida for the ten years ending in 1913 has been 6,660,000 boxes, while California and other states have kept pace in the development.

Florida shipped in 1912-13, 8,125,000 boxes; California for 1912 shipped 13,680,000 boxes. Florida's crop for 1914-15 is conservatively estimated at 10,000,000 boxes, an increase of 22.7 per cent this season; while California growers estimate this season's crop at a greater increase.

Our importations of citrus fruits for 1913 amounted to \$6,273,000 while imported manufactured products from citrus fruit, oils, essences, marmalades, etc., amounted to \$2,154,000 (taken from Bulletin No. 11, Citrus Protective League of California). I quote these figures to show the importance of the industry to the American people, the rapid increase in

American production, and particularly to emphasize the importance of protecting the American orange grower from the shipper of immature foreign and domestic oranges, to protect the grower and legitimate trade from the speculator and unscrupulous shipper, and the consumer from adulterated, misbranded and unwholesome fruit, an abuse affecting not only those directly engaged in producing the fruit, but also our transportation companies, manufacturers of fertilizers, crates, paper and machinery, as well as each of the millions of consumers of this most delicious and healthful of fruits, when fully ripe and wholesome.

That unripe or immature oranges have been, and are yet, often sold to those not familiar with the fruit in its perfect condition, will not be denied. The practice of "sweating" immature green colored oranges has, to a large extent, been practiced for years by unscrupulous shippers, both foreign and domestic, who, to obtain the advantage of a few weeks in the early part of the season and also to depress the value of the fruit on the tree for speculative purposes, have "artificially colored by holding in a warm, moist atmosphere for a short period of time after removal from the tree" this immature unwholesome fruit.

This fraud being practiced largely by shippers of foreign oranges, and, I regret to say also by certain shippers of domestic fruit. It is also well known that immature citrus fruit does not decay rapidly; in fact it is, to a certain extent, preserved by the excess of acid.

This abuse became so common a few years since, when the Florida and California crops reached large proportions, as to demand some action by our national pure food officials, who, after investigation, declared that:

"There is evidence to show that the consumption of such immature oranges, especially by children, is apt to be attended by serious disturbances of the digestive system." This fact, however, was generally accepted prior to the issuance of F. I. D. No. 133, April 6, 1911, by the national pure food authorities.

This ruling by the national authorities was quickly followed by the State of Florida; on June 5, 1911, the Florida "Immature Citrus Fruit Act" became a law. Its constitutionality was questioned by those interested in the shipment of "Immature Citrus Fruit," carried to the Florida Supreme Court, and the law sustained, as reported in the case of Sligh vs. Kirkwood, Sheriff, reported February 7, 1913. 65 Florida, page 123.

It will be noted that in F. I. D. No. 133, and in the Florida "Immature Citrus Fruit Law of 1911" no standard was fixed for determining the maturity of oranges. In both cases, "Immature Oranges" were declared unwholesome and unfit for consumption.

Necessarily, the question—"When is an orange mature and wholesome?" became immediately one of great public interest in the orange producing states. It is well known that immature citrus fruit, after removal from the tree, though it may be artificially colored by "holding in a warm, moist atmosphere for a short period of time," does not, as in the case of deciduous fruits, ripen; that such immature oranges "do not change in sugar or acid content after removal from the tree," and are not prone to decay, rather to desiccate or "dry up."

It can be readily perceived that some simple method, easily and quickly applied, one that could be applied by any one—grower, shipper or receiver—one that would positively determine the degree of ripeness, irrespective of color, became necessary.

Hence, a standard, fair to all parties—the grower, the shipper, and particularly to the consumer—a reliable and accurate standard, quickly applied by any intelligent man or woman, not requiring great skill, technical trainings, or expert knowledge to apply, was demanded, a legal standard fixed by authority, for the guidance not only of the inspector, but also for the grower and shipper.

This problem of devising such a standard was delegated by the Agricultural Department of Florida to a commission of eminent scientists, trained horticulturists, specialists in orange growing and marketing, chemists, and business men.

This commission was appointed by the Commissioner of Agriculture of Florida in June, 1911, and met July 6, 1912, at the Florida Agricultural Experiment Station, and assigned to its various members different phases of the problem submitted.

After several sessions and much correspondence, this commission prepared a report of their conclusions and presented the same to a largely attended convention of Florida orange growers, convened by the authority of the Florida Agricultural Department, at the State University, at Gainesville, August 15, 1912, and reported in part, as follows:

The report of the commission was presented by State

Chemist R. E. Rose, the duly appointed representative of the commission, in part as follows:

Gentlemen of the Convention:

The commission appointed by the Commissioner of Agriculture of Florida, to prepare a chemical standard for Immature Citrus Fruit, consisted of:—

Prof. H. Harold Hume, President of the Florida Horticultural Society, chairman.

Prof. P. H. Rolfs, Director of the Florida Agricultural Experiment Station, Gainesville, Fla.

Dr. E. R. Flint, Professor of Chemistry of the State University.

Prof. S. I. Collison, Chemist of the Florida Agricultural Experiment Station, Gainesville.

R. E. Rose, State Chemist, Tallahassee.

Owing to the unavoidable absence of Prof. Hume, the chairman of the commission, I have been delegated by the commission to present their report to you for your consideration.

It is not necessary for me to call the attention of this body of Florida orange growers to the eminent fitness of at least four members of the commission selected by the Commissioner of Agriculture for this important work; men who are known to all of you as authority on the subject presented to them; men trained as horticulturists, each a scientist of ability and repute, thoroughly familiar with the orange industry of the state.

The chairman of the commission, Prof. H. Harold Hume, is acknowledged to be an authority on citrus culture, and, as president of the Florida Horticultural Society, has the confidence of all the orange growers of the state.

Prof. P. H. Rolfs, the director of the Florida Agricultural Experiment Station, is also known to the entire state as one of the most competent horticulturists of the age, and particularly for his knowledge of citrus culture in all of its phases, from the seed bed to the marketing of the mature fruit.

Dr. E. R. Flint, chemist of the State University, needs no introduction by me to this audience. His reputation as a chemist is second to none in America.

Prof. S. E. Collison, the secretary of the commission, and the chemist of the State Agricultural Experiment Station, is also known to every orange grower by his work as an investigator in this particular line of study—the development of the citrus industry of Florida.

These four gentlemen are probably the best fitted by training and experience to investigate the subject and deduce correct conclusions that could have been selected in this or any other state.

Their official positions, in addition to their scientific attainments and familiarity with the subject, to say nothing of their personal reputations for fairness and integrity, give their findings unusual weight and dignity.

This subject—A Standard for Immature (or mature) Citrus Fruit—has very properly been the subject of much discussion among the parties interested.

That it is an important subject is evidenced by the great interest shown by the discussion, pro and con, by the press and in all gatherings of citrus growers.

That there is a general demand to prevent the shipment of immature oranges is evident to anyone who has been familiar with this industry, particularly since the crops have assumed large proportions. No one, I believe, will deny the damage done to the industry as a whole, by the shipment of sour, immature oranges. This, I believe, will be conceded by all.

The problem then is, can a standard be fixed by which an immature orange can be distinguished from a mature or ripe one? If so, what shall the standard be?

By whom shall the standard be fixed? All standards are fixed by the persons directly interested in the production and sale of commodities. I know of no exception. Standards when fixed by the persons engaged in the business of producing, manufacturing or selling a commodity, are the standards accepted by the legislative and executive officers, regulating the trade therein, and are used in all controversies for the settlement of differences—either by arbitration or by the courts. Therefore, the only persons who can fix a standard for oranges are the growers and shippers of oranges.

This was evidently the position assumed by the legislature when enacting the Immature Citrus Fruit Law. The demand was for a law preventing the shipment of immature fruit. The inquiry was made—what constitutes immaturity? and full discussion was had. The bill passed by a large majority, leaving, however, the fixing of a standard or definition, where it belongs—to the producers and con-

sumers of citrus fruits, the only persons interested, and to be protected by the law.

Shall color be the standard? This is answered promptly by a negative, as it is well known that certain varieties are green in color when they are at their best and most desirable stage of maturity. Other late varieties are beautifully colored months previous to ripening, though still sour and unfit for consumption. Color is, therefore, no proper standard for ripeness.

Shall different dates be fixed for the shipment of various varieties? It is needless to say to you that interminable confusion would follow when locality, soil, altitude, season, culture and fertilizing are all factors in the date of maturity.

If color and date be eliminated, what remains by which to distinguish a ripe orange—one fit for consumption? Texture cannot be used in determining the maturity of an orange. Mellow, soft, or tender oranges can not be shipped, nor would they be desirable for consumption.

We are therefore forced to examine the fruit chemically, to ascertain what the sugar and acid content is, when it is palatable and desirable as a fruit. When the consumer is pleased with its taste, and desires to repeat the pleasure of eating it.

Can a chemical standard be fixed? One that will do no injustice to the early orange. Will insure excellence in the seedling, and protect the late orange from condemnation by the consumer?

Your commission is convinced that such a standard can be fixed and have unanimously recommended such a standard. A standard that will work no hardship on the grower. That will protect the consumer; eliminate the speculator and jobber, and secure for the industry fair prices for the entire crop during the entire shipping season, which, as you knew, extends from October to July.

It has been said that a standard could only be fixed by a horticulturist and citrus grower. On your commission you have two, at least, of the most eminent horticulturists and orange growers.

It has also been said that a chemical standard would be "a gold mine to the chemist and of great cost to the grower."

The facts are, the "field test" can be made by any fairly intelligent man with apparatus and seasons supply of alkaline tablets not costing to exceed \$2.00. It can be applied quickly and inexpensively. In case of doubt an appeal for a laboratory analysis by the state laboratory is provided for. There are no costs or fees of any kind paid to the state laboratory.

The cost of a chemical standard to the individual is therefore eliminated. This argument against a chemical standard therefore falls short when we consider that the shipment of Immature Citrus Fruit is acknowledged by all to be of immense damage to the industry, destroying the reputation for excellence of the Florida orange.

Mature Florida oranges are acknowledged to be the superior of any grown in the world. Until the shipment of immature oranges began to be considerable, no fruit was more eagerly purchased by the consumer.

On your decision, gentlemen, depends much of the future prosperity of the industry. May the discussions of the problem be fair and unprejudiced, your decision wise and for the general good of the entire industry.

We have carefully compiled all data available from official and individual sources. We have the data from which we drew our conclusions subject to your inspection, and will have the same published.

We find the ratio of acid to sugar remarkably constant, at the season of ripening, for all varieties. The ratio of one part citric acid to seven parts of sugar, as invert, we find to be the least ratio at which an orange may be deemed fit for shipment: though it is not yet fully ripe, it is in a fair shipping condition.

The maximum acid fixed at 1.25 per cent for field test will cut out few oranges, if any, that are fit for consumption. A very few sweet oranges contain 1.25 per cent of acid.

Your commission organized July 6, divided the work among its members, met subsequently on July 18, and worked early and late in analyzing, studying and digesting the data compiled—that of the United States Agricultural Department, the California and Florida Agricultural Experiment Stations, and other published data from reliable sources was compiled by the gentlemen of the University and Agricultural Station.

The large number of analyses made by Wiley and Company, for the "Florida Citrus Exchange," and by Genth & Company, for the "Florida Fruit and Vegetable Shippers' Protective Association"—both reputable and competent commercial laboratories—were compiled by the state chemist. There were in these recent analyses for the season of 1911-

12, 218 made by Wiley & Co., and 62 made by Genth & Co., submitted to us.

These various analyses when reduced to uniform chemical terms, their dates chronologically arranged, varieties and known seasons of ripening considered, were found to be exceedingly concordant. In fact, your commission was struck by the agreement between all analyses, when considered from the same viewpoint.

The ripening of the various varieties at the proper season was readily seen, while the decrease in acid and increase in sugar was uniform up to full maturity. The change in the fruit after picking was little, if any. The statement that oranges do not improve after plucking is found to be true, and the broad statement that oranges do not improve (ripen) after plucking, is well borne out by the investigation.

All these facts, however, have been carefully compiled and detailed study made, and are ready for examination by yourselves or any committee appointed by your body. As stated, the analyses and compilations of data are published for your information.

Your commission has labored long and faithfully, and now submits to you the results of its labor, for your careful and earnest consideration.

REPORT OF COMMISSION.

Be it Resolved, That we recommend to the convention of citrus growers that the following standard be adopted:

"One. All round oranges showing a field test of one and twenty-five hundredths (1.25) per cent or more of acid, calculated as citric acid, shall be considered as immature."

"Two. Provided, however, that if the grower (or shipper) consider the fruit mature he shall have the right to appeal from the field test, to the state chemist for a chemical analysis, and if this chemical analysis shows that the percentage by weight of the total sugar, as invert sugar, be seven times or more than the weight of the total acid as citric acid, the fruit shall be deemed mature."

"Three. That the juices of not less than five average oranges shall be mixed from which a composite sample shall be drawn for the field test."

Four. That the juices of not less than twelve average oranges shall be mixed, from which shall be drawn a composite sample for laboratory analysis."

We recommend that analyses of immature grape fruit and round oranges be made during the months of September, October, November and December.

We recommend that the state chemist, the chemist of the experiment station and the chemist of the university be earnestly requested to make such analyses during the ensuing shipping season.

The commission further recommends that this convention of citrus growers make every possible effort to assist these officers in securing the necessary fruit and also aid them in securing the necessary funds to employ the assistance needed to carry out this work.

That this commission recommend that the analytical data secured by the commission be compiled by the state chemist and be published as a part of the Quarterly Bulletin of the Commissioner of Agriculture. This information being deemed very important for the citrus grower.

(Signed.) H. HAROLD HUME,
S. E. COLLISON, Chairman.
Secretary.

REPORT OF CONVENTION..

After a prolonged discussion, in which many growers participated, the following resolution was unanimously adopted:

"Resolved, That it is the sense of this convention that the report of the commission shall be adopted, and shall obtain until the 5th day of November in each and every year; Provided, That after the 5th day of November in each and every year the standard shall be, 'that if each orange is two-thirds the total area colored yellow it shall be considered as mature and fit for shipment'."

The following amendment was also offered and unanimously adopted:

"That no variety of oranges or grapefruit shall be allowed to be shipped before October 1 of each year that has bloomed during that calendar year."

After several demonstrations of "field test" by State Chemist Rose and Assistant State Chemist Henry, the meeting adjourned sine die.

W. A. McRAE, Chairman.

Attest: JOSIAH VARN, Secretary.

Complying with the recommendations of the commission, and the directions of the convention of orange growers, held at the Florida Agricultural Experiment Station, August 15, 1912, the following study of the analysis of two hundred and

fifty-nine samples of Florida oranges, involving samples from seventeen localities in the state, has been made for the purpose of determining the chemical composition of mature oranges, and to show the chemical changes during the process of ripening.

These samples were systematically taken by responsible growers, and forwarded at regular intervals each week to the State Laboratory at Tallahassee.

The analytical work and compilation of results has been done by A. M. Henry, B. S., Food and Drug Analyst of the State Laboratory. The conclusions drawn by Mr. Henry will be acknowledged by any one who will study the results, as fair, logical and fully justified by the data obtained.

That a "standard maximum acid content" for mature oranges can be fixed is apparent. Such a "maximum acid content" can be readily ascertained by a simple field test, which, while simple, is still accurate, inexpensive, and quickly applied, a test requiring no expensive apparatus nor costly reagents, one that can be applied by any intelligent person after a demonstration by any one familiar with rudimentary chemistry.

A standard involving a "ratio of acid to sugar," though doubtless of value in making this study, would in the opinion of the writer, involve considerable unnecessary argument and discussion, great loss of time, considerable expense, and accomplish nothing that would not be accomplished by a "standard maximum acid content."

The analyses, the dates, the gradual decrease in acid and increase in sugar, though not absolutely uniform and differing as to variety, all go to show that the conclusions drawn by the commission appointed by the Commissioner of Agriculture, to recommend a standard, and the action of the Citrus Growers' Convention, at Gainesville, in adopting the standard of "1.25 per cent maximum citric acid" was correct, as is confirmed by the studies of the various laboratories that have continued the study during the season of 1912-13.

That a chemical standard is the only fair standard—variety, date of maturity, season, soil, and treatment considered, that can be devised will, I believe, be conceded.

The position assumed by the writers, as expressed at the convention of Citrus Growers at Tampa and again at Miami, has been sustained by this year's study.

No arbitrary date of maturity can be fixed for all varieties of oranges. Color is no index to maturity.

I would suggest, that in case of further legislation on the subject, or agreement among growers, that a "standard maximum acid content of 1.25 per cent be fixed, that any orange having more than 1.25 per cent acid (as crystallized citric acid) be considered immature, that all oranges showing not more than 1.25 per cent of citric acid be considered mature—without respect to date, color or variety, that the number of average oranges for the composite sample be fixed, that the method of preparing the sample be fixed and uniform, that the chemical terms, factors, and methods be also fixed and uniform.

I would recommend that not less than twelve average oranges, fairly representative of the fruit under consideration, be taken for a "field" or "house test," that they be peeled and the juice extracted by ordinary pressure, mixed and strained, that a representative sample of this juice be "titrated" against a standard uniform alkaline solution, equivalent to exactly 1.25 per cent of crystallized citric acid that the grower shall have the right to appeal, in case he is not satisfied with the inspector's decision, to the state chemist (the fruit under investigation to be held pending the result of the appeal to the state chemist) that the only determination to be made by the state chemist shall be the percentage of "crystallized citric acid" in the sample submitted, which shall be *prima facie* evidence of the maturity or immaturity of the fruit under consideration, the sample sent to the state chemist to be twelve average oranges, fairly representative of the fruit in question, drawn and sent by the grower and the inspector, the samples to be verified by the signatures of the grower and the inspector, and witnessed by two witnesses. A commission of five consisting of three growers, one attorney, and one chemist, should prepare any bill, memorandum of agreement among the growers, in order that legal procedure, correct uniform methods of sampling, uniform methods of analysis, and terms and standards satisfactory to the grower, should be approved and adopted.

As recommended, from the results of these official investigations, the detailed reports of the same, and those of collaborating laboratories, the Florida legislature of 1913, after the unanimous adoption of the report and recommendation by the organized orange growers of the state, "The Florida Grower's and Shipper's League," "The Florida Citrus Exchange," "The Florida State Horticultural Society," and

on the favorable report of a special legislative committee of nine members, from the orange growing counties, enacted what is known as the "Citrus Fruit Standard Law," being Chapter 6515, Laws of Florida, fixing the standard for mature oranges at 1.30 per cent maximum acid, as crystallized citric acid; that for grapefruit (Pomelo) at 1.75 per cent acid, with certain color qualifications, the inspection period being from September 1 to November 5 of each year.

The State Chemist's report for the season of 1913, in part, is as follows:

EXTRACT FROM STATE CHEMIST'S REPORT, 1913.

"There were but few attachments, or seizures, under this law during the season of 1913.

"By far the larger number of our citrus growers and shippers are law-abiding and heartily in favor of the law.

"A large number of such provided themselves with the necessary apparatus by which to determine the maturity of their fruit under the standard fixed by the legislature, and thus informed themselves as to the maturity of their fruit before shipment.

"Only in such cases, wherein a very palpable effort to evade the law was evident, were attachments made.

"With but one exception the inspectors' 'field tests' were upheld by analysis by the state laboratory. In this case, the inspector's 'field test' varied but 0.06 per cent from the analytical results under laboratory conditions, showing the accuracy of the 'field test,' and skill of the inspector in its application.

"In those cases where attachments were ordered, the fruit unquestionably contained a much larger percentage of acid than allowed by law, and was undoubtedly 'immature and unfit for consumption.'

RECOMMENDATION.

"I would recommend, therefore, that the standard of 1.30 per cent of maximum acid for all oranges, and 1.75 per cent for all grapefruit, irrespective of color; as recommended by the commission, and approved by the organized orange growers of the state, be made the legal standard. That at least eight competent inspectors be employed, the inspection districts being decreased in size proportionately, and that the inspection period be extended to December 31 of each year."

The experience of 1913 shows conclusively that on "November the 5th of each year" much fruit is still "immature and unwholesome," a fact conclusively and graphically shown by the tables of analyses."

Immediately after the expiration of the inspection period (November 5), shipments increased greatly. There were 52,000 boxes (160 cars) of oranges and grapefruit shipped from the state during the season up to November 5; and sold at an average price of \$3.30 per box.

From November 5 to November 13 (eight days), 347,000 boxes (1,060 cars) were shipped—more than six times the total amount shipped previously, and which sold for \$2.60 per box, average, including choice mature fruit.

It is estimated that four-fifths of this fruit was immature, not fully grown, sour and unwholesome. Much of it was sold for less than transportation charges and cost of packing. Four-fifths of this fruit was evidently prepared for shipment in anticipation of the close of the inspection period, by the usual method of "sweating."

The market glutted with inferior, immature, sour and unwholesome fruit, immediately dropped below cost of production. Much of this fruit was notoriously immature, not being fully grown, and far below the average in size.

Its marketing at ruinously low prices, less than cost of packing and transportation charges, in many cases, necessarily caused a panic among growers, causing them to sell their fruit on the tree at ruinously low prices to the speculators, who had for this purpose broken the market, and who, having purchased the fruit at panic prices on the tree, subsequently marketed them when mature, at profitable prices.

This abuse has prevailed for years until the growers, through their various organizations, have inaugurated this investigation, and enforced the necessary remedial legislation.

Possibly no investigation of this character has been discussed more fully by the parties interested, not only in Florida, but in California and other orange producing states, by the people and by the press. It has been thoroughly threshed out, and, in my opinion, a correct solution found, after years of labor and study by scientists and competent horticulturists, orange growers and business men, and the answer is that:

"An orange is mature when its juices contain not more than 1.30 per cent of acid, as crystallized citric acid." I also believe that if such a standard be adopted by our national food authorities, not only would the vast consuming public

obtain wholesome and desirable oranges, but also, that an industry of vast proportions, increasing with wonderful rapidity, would be protected from one of the most corrupt and criminal practices now perpetrated on the producer and consumer.

The report of the commission to recommend a standard to the convention at the State Agricultural Experiment Station, August 15, 1911; the report of the convention adopting the standard, also the further study of the subject, as directed by the convention to be made by the chemist of the Florida Agricultural Station, and the State Chemist; the report of the State Chemist for 1913, showing the results of the workings of the law, are all published. Copies are here for those who may desire more detailed information on the subject.

Trusting this important matter may receive the attention it deserves at the hands of our "Standard Committee," and be favorably recommended by your body to the attention of the national authorities, and that a standard may be fixed to insure to the grower and the consumer of oranges, a mature and wholesome orange, I leave the subject with you.

President Wallis: Are there any questions you want to ask Dr. Rose?

Dr. Chas. Caspari, Jr.: I hope that the national government will take this matter up at a very early date and enable those states which have food laws modeled after the federal food and drugs act to follow them. In Baltimore we have had some trouble in this respect, and you remember you notified us to stop the sale of certain carloads of immature citrus fruit there. We did what we could at the time but we were powerless to enforce any specific standard. Now if the government will take the matter up and issue something on the matter, those of us who have laws framed after the national law will be able to enforce it. I think the Florida orange growers are to be congratulated that they at least have reached a condition where they have set a standard for themselves which will afford some relief. I have looked forward for some time to some action of this kind but unfortunately in the state of Maryland we cannot do anything unless the government first sets the pace. We must follow the national rules and regulations and I hope the government will take this matter up.

Dr. R. E. Rose: The national government could do as Florida did in the first instance—enact a law prohibiting the sale of immature oranges but it must leave it entirely to the inspector to determine when those oranges are immature. It may suit him very well when it might not suit anybody else. There is nothing definite about it. But this method calling for 1.30 per cent maximum acid answers the question quickly and simply. There are 10,000,000 boxes oranges sold in Florida and the grower doesn't sell immature oranges. But the broker does and he is the one who has supplied the markets of the country with immature oranges and did it to destroy the price. They could buy on a bad market and bull it when it became profitable to do so.

Dr. Chas. Caspari, Jr.: How is it possible for the brokers to get hold of all this fruit if the grower don't sell it to them?

Dr. R. E. Rose: Because the market has been broken below cost of production the grower is glad to get rid of them.

President Wallis: These four bulletins on the subject are here on the desk and at the disposal of the convention.

I have an announcement, gentlemen. I was sent a letter by the President of the Board of Trade with the request that we appoint a committee to go to his office and consult with him about some form of entertainment for the ladies during our sessions here in this city. I will appoint the following committee

to wait upon the President of the Board of Trade for this purpose:

Mr. Foust of Pennsylvania.

Mr. Newman of Illinois.

Mr. Soule of Maine.

Another matter I want to bring to your attention: The executive committee decided to combine the three afternoon section meetings of Section A into two afternoon meetings and the three afternoon section meetings of Section B into two afternoon meetings, this afternoon and tomorrow afternoon—and to hold a night session Thursday so that by Thursday night we will be through with the business of our convention. Friday will, of course, be Manufacturers' Day and will conclude the entire convention.

I want to make the announcement that for the section meetings Section A will meet in this room and Section B will meet in the Senate Chamber just beyond.

The convention stands adjourned until 2 o'clock this afternoon.

Adjourned until July 14, 2 p. m.

WEDNESDAY, JULY 15, 9:30 A. M.

Presiding: James H. Wallis, President.

President James H. Wallis: The convention will be in order. First, I want to state that we are very anxious to secure a complete registration of all our visitors. We have the list of delegates practically completed, but our list of visitors is not complete and I want to announce that Dr. Taylor of New Orleans will take the names of visitors at the desk there by the door.

We have here some letters that ought to be read into the record and I will call on the secretary to come here and read them.

Mr. F. L. Shannon:

Department of Agriculture and Industries
State of Alabama, Montgomery.

Hon. James H. Wallis, July 10, 1914.
Portland, Me.

Dear Mr. Wallis: I am sorry that I cannot meet with you in Portland but my work is such that I cannot leave. I have an important case coming up during the week and it is impossible for me to get away. I am very much interested in the success of this case and I am afraid to leave and the U. S. District Attorney would not consent to my going away.

I trust that you may have a successful meeting and that everyone will enjoy the trip. I sincerely regret that I am unable to get away. I am, with best wishes for you and all the members of the Association,

Your friend, C. H. BILLINGSLEY.

Board of Health of the State of New Jersey.
Trenton, July 12, 1914.

James H. Wallis, President Association American Dairy, Food and Drug Officials, Portland, Me.

My Dear Mr. Wallis:

At the last minute I find, to my great regret, that it will be impossible for me to attend the forthcoming convention at Portland. I had fully intended to be present but at the last moment matters have arisen which make it absolutely necessary for me to remain in Trenton. I have forwarded the paper which I was to have read to Mr. Allen, and trust that he may be able to find someone to read it for me.

The program of the meeting indicates that it should be one of the most important and successful ones which have been held. I am particularly interested in

the report of the Committee on Co-operation, because I am firmly convinced that real co-operation between federal, state and municipal authorities is necessary before much more progress can be made in bettering conditions in the sale of foods and drugs. I am also much interested in the subject assigned to Dr. Barnard, "Development of Food Industries," because our own experiences along this line had led me to believe that much more real good can be accomplished by constructive and co-operative work than by the mere enforcement of law by the punishment of offenders. Our work on the canning and shellfish industries in this state have met with a considerable measure of success which has encouraged us to plan further work along similar lines in other industries.

Trusting you will have a most successful meeting, and again expressing my regret that I am unable to be with you, I am,

Very sincerely yours,

R. B. FITZ-RANDOLPH, Chief.
Commissioners of the District of Columbia,
Health Department, Washington.

July 13, 1914.

Mr. James H. Wallis, President Association American Dairy, Food and Drug Officials, Portland, Me.
Dear Mr. Wallis:

I regret very much that I am unable to be present at the meeting of the Association of American Dairy, Food and Drug Officials, now in progress. The Commissioners of the District had authorized me to attend, provided funds were available for that purpose, and I had hoped to be present. Congress, however, has not provided the necessary funds and as matters now stand no funds will be available during the current fiscal year for attendance at any meeting of any organization whatsoever. In view of the fact that my personal resources are not sufficient to enable me to defray expenses of this kind to any considerable extent, I regret very much the failure of Congress to provide the appropriation needed for that purpose.

With best wishes for a successful meeting, I am,

Yours very truly,

WM. C. WOODWARD, M. D.,
Health Officer.
California State Board of Health,
Bureau of Foods and Drugs,
University of California,
Berkeley, Cal., June 4, 1914.

Mr. James H. Wallis, President Association American Dairy, Food and Drug Officials, Boise, Idaho.
My Dear Mr. Wallis:

It will not be possible, in accordance with my doctor's advice, for me to be present at the meeting of the Association of American Dairy, Food and Drug Officials, and personally extend the invitation to the Association to meet in California in 1915.

I take this means, therefore, in behalf of the State Board of Health, in extending to the Association a most cordial invitation to hold the convention of 1915 in San Francisco, or Berkeley, the seat of the University of California.

In view of the strong letter from Mr. C. C. Moore, President of the Panama-Pacific International Exposition, herewith attached. I do not think it is necessary for me to comment further on the advantages of the coast for the 1915 meeting. To those who have been here before, nothing need be said; to those who have not visited the coast and experienced personally

the climatic and scenic attractions, it would be impossible for me to say anything worth while in a letter if I could, and I could not, if I would.

With deep regrets for my not being able to attend the convention, and with best wishes for a successful and profitable session, believe me,

Very truly yours,

M. E. JAFFA, Director.

July 14, 1914.

Hon. James H. Wallis, President American Association of Food and Dairy Departments, Portland, Maine.

Dear President Wallis:

I find at the last moment that it will be impracticable for me to be present at our meeting at Portland. I have been engaged on a case of suspected poisoning, and the equipment now going up in our new chemical laboratory makes it necessary for me to be here just at this time. I need not tell you of my great regret to be deprived in this way of the advantage of the convention as well as the pleasure of renewing my acquaintance with you and other friends. I know that you will have a very successful meeting, and it is unfortunate that I shall have to content myself for the time being with an expression of my sincerest good wishes for you personally and for the success of the meeting at Portland.

Yours,

W. F. HAND, State Chemist, Mississippi.

President James H. Wallis: If there is no objections, these communications will appear in our report. The letter from Mr. Moore, to which Prof. Jaffa alludes, inviting you to meet in San Francisco next year will be read when that order of business is reached.

Gentlemen, we are now commencing on the program for the third day and in looking over the program, I think it can be carried out just as it appears in the printed copies and I want to say especially that this morning I feel that we are going to be highly honored and favored when we have the address of Dr. W. D. Bigelow, chief chemist of the National Cannery Laboratory, Washington, D. C., on a subject on which I think he is one of the authorities of the United States and I therefore hope that the greatest attention will be paid to the reading of the paper and the discussion that will follow.

Dr. Bigelow, it is thought best for the speakers this morning to stand over here and let the audience avoid the glare from these many windows on this side of the room. Dr. Bigelow.

Dr. W. D. Bigelow: Gentlemen, in thinking over the subject on which I am about to speak, I found that it is very difficult to crystallize my thoughts if I speak extemporaneously, as I would prefer to do. To avoid repetition, therefore, and avoid the digressions that would surely attend the extempore discussion of so complicated a subject, I have prepared a paper, which I will read:

SWELLS AND SPRINGERS.

By W. D. BIGELOW,

Chief Chemist, National Cannery Association.

In considering this problem it is necessary to bear in mind the two general types of cans which are now used for the preservation of food. These are known respectively as the "hole and cap" and the "open top" or "sanitary" can.

The "hole and cap" can is the one whose ends are soldered and which is closed after the introduction of the food by soldering in place a cap with a vent hole, which is then tipped with solder.

In the case of the "open top" can, one end is left off entirely until the can is filled, and then the entire end is crimped on to the can by rollers, tightness being assured by means of a gasket of some elastic or compressible material, such as rubber composition.

I shall now take up the subject according to the topics assigned in the program, but discussing the first and second topics together.

A swell in canned foods is a can which has undergone decomposition by micro-organisms, accompanied by the generation of gas, which first releases the vacuum and then causes pressure in the can. This decomposition is often of putrefactive nature and may be rapid or slow, according to the organism and temperature.

Swells are due either to defective sterilization, or to leaky cans. It is sometimes difficult to measure the heat conductivity of a given product. Fruit which is thoroughly ripe has a tendency to cook up more than fruit that is greener, and



DR. W. D. BIGELOW, Washington, D. C.

thus lessen the heat conductivity of the liquid in the can. In the case of many products, such as corn, the heat required to penetrate to the center of the can increases with the consistency of the product. If the processor underestimates the ripeness of a batch of fruit therefore, or the consistency of a homogeneous product, or the amount of sugar added, swells may result.

Owing to defects in the manufacture of the can, or in the plate from which the can is made, there are occasional leaks, sometimes so small that even when filled with air under pressure of 20 or 30 pounds, the air that bubbles through them when placed under water is in such fine particles that it is difficult to see. When such cans are filled with food the bacteria that pass through these openings cause decomposition and when pressure results the openings are sometimes closed by particles of food and are difficult to find.

A springer is a can whose ends are more or less bulged, owing to pressure from hydrogen generated as a result of the chemical action of the contents on the metal of the container, or because the can was overfilled or insufficiently exhausted.

In springers where the pressure is caused by overfilling the can, or by insufficient exhaust, this pressure does not increase with time, but remains constant except as it is influ-

enced by temperature of storage. The ends of the cans are somewhat distended and may easily be pressed into place with the fingers. When the fingers are removed the ends may resume a convex position, or may remain concave or flat (according to the pressure within the can) until the can is jarred, and sometimes until the temperature to which it is subjected is increased. A number of packers have put up products in the fall which appeared normal till the following summer, when springers developed, and when these were held till the cool weather of the following fall the ends resumed their normal concave position. Thus it has frequently happened that foods packed, for instance, in New York, Maryland or Alaska, have been sold by packers who had no suspicion that they were abnormal in any way, and yet those that remained on the retailers' shelves the following summer, especially in the Southern States, developed springers as a result of increased temperature.

Springers of this nature are found chiefly in open top cans, and only rarely in hole and cap cans. With the latter there is always sufficient head space, otherwise the soldering iron would heat the air space to so great an extent that it would be impossible to seal it. It so happened that the use of the open top can was enormously increased at just the time when there was an effort on the part of the Federal Government, and also of the best canners, to secure a full can. It was immediately seen that it was possible to fill the open top can full. As a result a large amount of food was packed in the open top cans with very little head space, sometimes practically none. Now if such food was not heated to a pretty high temperature before it was capped, expansion naturally occurred after the product was shipped to a warmer climate and springers resulted. Many of the best firms found that a large proportion of their pack of some products consisted of springers immediately after canning; that is, the ends of the cans did not collapse on cooling, but remained somewhat distended. As packers become more familiar with the open top can and learn the amount of head space requisite and the necessity of a thorough exhaust, this difficulty is disappearing and springers of this nature will probably not be found to a large extent in the future.

The case is somewhat different when pressure is due to hydrogen generated by the action of acid fruits on the metal of the can. It is ordinarily taken for granted that the hydrogen thus generated is due to the action of the acid of the fruit on the tin. I think this is a mistake. I think it results, in large part at least, from the action of the acid on the iron and that the amount of hydrogen liberated in the can is usually a measure rather of the iron that has been dissolved than of the tin. The metallic taste in a product of this nature is certainly due to dissolved iron. Of course, where any great amount of iron is dissolved in the product, the tin is also dissolved, but passes largely into an insoluble form.

This question has been studied for several years and in several laboratories. Exhaustive investigations, devoted to this point and to the kindred question of the action of the foods on the container, have been conducted (involving the expenditure of over \$25,000), and the work is now being broadened and increased. Considerable progress has been made, but the solution is not yet in sight.

In this connection I wish to point out the relation of springers to certain other difficulties of the canner. The natural acids of the fruits attack the container, dissolving the iron and carrying tin into the food and into the liquor, where it is largely, often chiefly, precipitated in insoluble form. This liberates hydrogen, which directly causes springers. While in the nascent state this hydrogen bleaches many of the colored fruits. When lacquer is used in an attempt to prevent this action pinholes often result, leading to the spoilage of a considerable percentage of the pack, and with some products an undesirable flavor is imparted by the lacquer. These difficulties all come from a common cause and will only be overcome by understanding and removing the cause. This statement, however, does not include the solvent action on the metals of the can of amino bodies in certain foods such as shrimp, pumpkin and asparagus.*

*U. S. Department of Agriculture, Bureau of Chemistry, Cir. 79.

According to the amount and character of the fruit acid present, the tin, and especially the iron of the container, are more or less attacked, the latter causing the astringency which is often called the "tin" taste of some canned food, and yielding springers of the class we are now discussing. Since the action is chemical it is influenced by time and temperature of storage. It progresses more rapidly in summer than in winter; more rapidly in a hot warehouse than in one that is cold.

The amount of hydrogen generated depends first on the temperature and time of sterilization; second, on the promptness and efficiency of cooling after sterilization; third, on the time of storage (the age of the canned product); fourth, on the temperature of storage. The relative importance of these four factors cannot be stated. In some cases the amount of tin and iron dissolved, and the amount of hydrogen generated are fairly proportional to the age of the product. Again, especially if the cans are allowed to cool in the air, as is frequently done with some products, the action on the tin and iron and the amount of hydrogen generated are greater within a week after canning than after two or three years if cooled promptly and handled reasonably well.

The time that elapses before springers of the type now under consideration are formed depends on the four conditions mentioned above, and also on the fill of the can, i. e., the amount of air space left, and on the vacuum in the can, or, in other words, the temperature of the product when the cans are sealed.

Since the amount of hydrogen increases with time and temperature of storage, the pressure on the tin gradually increases until it cannot be distinguished by pressing with the hand from swells. Finally the pressure becomes so great that a seam is sprung, causing leaks and leading to infection and decomposition.

In distinguishing between swells and springers it is important to bear in mind that the former usually progress rapidly and the latter slowly or not at all. Swells, therefore, usually become hard, or even burst before they reach the retail trade. In fact, it is the custom of canners to store their goods and permit such swells to develop as far as practicable before they leave the factory. After this it is usually only an occasional can that develops a leak and becomes infected. When a large percentage of a lot of canned food shows convex ends which may be pressed into place with the fingers, they are usually springers and not swells. Moreover, when decomposition has progressed so far that the ends begin to bulge, the odor on cutting the can is unmistakable; and even before that the peculiar aroma characteristic of the food is destroyed. *In this connection I wish to disclaim the idea that food whose appearance, odor and taste are acceptable to the consumer is necessarily free from decomposition or suitable for consumption, whether it be fresh or preserved.* There is a great difference, however, between decomposition in the open and in a confined space like a sealed tin can. In the open decomposition is more or less localized and its volatile products to which the characteristic odor of decomposition is due are largely dissipated, especially on cooking. In the can decomposition, when it occurs, is much more general throughout the mass and these volatile products are confined and are evident when the can is opened. A striking illustration of this is found in peas and corn held in the market till quite stale. They may be quite acceptable when prepared for the table in an open kettle, according to kitchen practice, and yet when canned have an offensive odor.

I feel that I am very safe in the statement that when decomposition has proceeded within the can to a sufficient extent to cause a perceptible bulging of the ends, the odor of decomposition is evident on cutting the can, even though it may have been vented and resterilized. Many consumers would doubtless overlook this distinction in some cases just as they overlook staleness in market vegetables and incipient decomposition in fish and shell fish purchased as fresh. For the reasons given above, however, it is more evident than the same degree of decomposition in market fruits and vegetables. It should be evident to any careful observer and does not require the highly developed sense of taste and smell possessed by tasters of coffee and tea, and especially of wine.

It should be borne in mind that, as stated above, springers due to overfilling or insufficient exhaust will be found in the market less frequently as packers learn the proper fill and exhaust. Springers due to hydrogen are found in strongly acid foods and are largely confined to the more acid fruits. The non-acid foods that attack tin or iron rarely form springers of this class. The three great staples in canned foods, tomatoes, peas and corn, neither attack the metals of the container to an appreciable extent, nor form springers due to hydrogen.

The third topic assigned to me is, "Where Should the Line Be Drawn as to What Class of Foods Coming Into This Category Might Safely and Properly Be Used as Food Products?"

I will say without reservation that swells should not, under any circumstances, be used as food. Sometimes, especially in the case of fruit, such swells are the result not of bacterial decomposition, but of the action of yeasts and the products are

simply sour. With the exception of highly nitrogenous material it is probable that toxins are not formed in such swelled goods. In my opinion, however, it is to meet such conditions that a clause has been included in the Federal law, and all State laws, forbidding the sale of products which in whole or in part are "filthy, decomposed or putrid." Certainly that clause should be held to cover all food which it properly describes, whatever its form and manner of preservation, and all canned foods which are "swells" as a result of decomposition by micro-organisms are intended to be covered by this clause and should be covered by it. They should not be used as food or in the preparation of food.

With springers the case is widely different. Springers due to overfilling or insufficient exhaust are sound and edible in all respects. As I have already stated, however, this type of springer will soon be almost a matter of history. With springers of the second type, after the action of the acid on the metal has proceeded to such an extent that the product cannot be distinguished from a true swell, it is my opinion that they should be condemned and destroyed. The strong metallic taste due to dissolved iron is commonly so pronounced in such cases as to make the product unpalatable. Moreover, as I have said before, it cannot by outward appearance be distinguished from a swell.

As just stated, in the case of springers due alone to overfilling the can or insufficient exhaust, the contents are sterile and sound in every way and their use as food, or for the manufacture of foods, should be permitted. It is obvious that their sale on the market in that form is impossible, and in my opinion it should not be possible. The bulged end, even if it can readily be pushed in place with the fingers, is taken by the consumer as a warning sign, indicating decomposition. It is a safe and reasonable sign and one which the consumer should continue to use. If food products of this nature are to be sold, therefore, the cans must be heated, vented, resealed and again sterilized.

I realize that the work of food commissioners would be simplified if the venting of an open top can, for instance, were held to be *prima facie* evidence of decomposition. Such a practice, however, is not logical nor necessary in order to protect the consumer. It should not be possible, acting under the name of the law, to prevent or restrict the sale of food that is sound and wholesome, prepared under good conditions, and in every respect suitable for consumption. Such a decision is unjust to the manufacturer and prejudicial to the public good in so far as it is uneconomic.

It is a recognized principle of legislation that the public health must be protected even though hardship to many be worked thereby. This principle, however, does not apply to the question under discussion. Danger to the public health is not involved. As far as I can learn there is no evidence and no reason to suppose that illness is ever caused by a product of this nature.

When a can of food has undergone decomposition by micro-organisms to such an extent as to cause the slightest bulging of the ends, it is practically impossible for it to be reprocessed in such a manner that the decomposition will not be betrayed to a careful observer of the odor. By re-processing in this connection, I refer merely to venting and re-sterilizing in the can and not to cooking in an open kettle with or without added sugar and flavor in the preparation of other products.

Again, it may be found advisable to vent all cans used for certain products, such as meat, fish and shell fish. It has always been customary in packing salmon in hole or cap cans to close the vent in the middle or the cap immediately after sealing, heat in the process retort, revent to allow the air to escape, close the second vent and sterilize. Since the advent of the open top can without vent holes, I am told by my associate, Dr. Bitting, that the product may be somewhat inferior. It appears that by the second venting of the cap of the old can there are expelled not only air but also gases caused by heating the fish and whose retention in the absence of vent holes gives the product a stale odor and flavor. By interrupting the process and venting the open top cans this can be avoided, as in the hole and cap can. Recent experiments conducted by Dr. Bitting with crabs gave the same results. It is believed that this difficulty has been practically overcome by using two sealing machines. With the first one the cover is loosely crimped on the can, which is then given a thorough exhaust and sealed while hot in the second machine. At the same time it is possible that with some products the highest degree of excellence cannot be secured even with the open top can without venting after a preliminary heating in the process retort.

I regret that the subject assigned me includes one question which I cannot answer: "How many such class of fruits that

have been worked up into various by-products be detected by commissioners?"

If this practice were extensive I would suggest that it might be handled by factory inspection, but conducted as I am informed it is, in a small way, irregularly and only by men who have no connection with any legitimate industry, the inspection of the factories where such by-products are made appears to be out of the question.

Of course it is obvious that swells in an advanced state of decomposition cannot be used in the preparation of any food whatever. There is no doubt that the great majority of so-called swells which are used in the preparation of products of this nature are not really swells in the sense of having been caused by decomposition, but owe their distention to hydrogen gas formed by the action of the fruit acids on the metal of the container.

At the same time, the situation is different from that found in re-processing foods in the can. In the case of certain fruit products which have begun to swell, even as a result of decomposition, it is probably sometimes possible, by boiling the product in an open kettle, to eliminate the odor of decomposition to such an extent that it is masked to the ordinary taste and smell by the addition of the sugar and flavors. This practice is most reprehensible and all possible effort should be made to stop it. Its detection, however, in the finished product, is attended by considerable difficulty. Probably the best method is by means of the microscope. Even if the decomposition has not proceeded to an advanced degree, when it has occurred in enclosed space, such as a sealed tin can, it is found to be quite general and the histology of the product is changed. Unfortunately, this method can only be employed by analysts with long training and experience in structural botany and there are very few analysts in the country who are competent even to undertake the study of the question. It is hoped that in the near future more attention will be given to this line of work. Chemical methods have not been thoroughly worked out and I do not know that they are possible, though undoubtedly progress can be made in this field. The determination of the character and amount of acid in fruit products is often of value. In this manner a clue to decomposition can sometimes be obtained by the fact that the normal acid of the fruit in question is not present in proper amount. Lactic acid, which usually accompanies decomposition in tomatoes, is not ordinarily found in decomposition of fruits. It would be strange, however, if the application of bio-chemistry to the problem did not disclose some by-products of the life of micro-organisms that might be considered sufficient evidence of decomposition. The attention that has been paid to the detection of decomposition in food is not at all commensurate with our needs. The situation calls for work of a different type from any that has been largely utilized in detecting food adulteration. Such methods are needed, however, not for the examination of products of the type mentioned, but, broadly speaking, for the detection of decomposition in food, whether fresh or preserved, and whatever the manner of its preservation.

Perhaps the most striking feature of the packing of foods in recent years is the progress that has been made in the cleanliness and sanitation of factories and in washing the raw products and hand sorting and trimming to exclude from the finished product rot and decay which, when we come to think of it, is decomposed matter and just as objectionable as that found in a swelled can. Notwithstanding this progress, however, the amount of such decomposed matter that reaches our tables in our foods, both fresh and manufactured, is still so great that the amount of decomposition introduced into pie filling, jams and fruit butters in the form of blown cans dwindles into insignificance. I do not depreciate the gravity of the latter practice, but wish to emphasize the fact that to give it serious consideration before a more determined effort is made to insure a more satisfactory sanitary condition in food factories of all kinds is like "straining at a gnat and swallowing a camel."

The final question asked me is: "Does the presence of tin in excessive quantities denote that such products are made from swelled canned foods?"

Most emphatically it does not. Of course the decomposition that causes the swelling of canned fruits increases their acid content and hence their action on the tin and iron. At the same time, some products which are badly decomposed, even though the pressure has become so great that the can has burst, are not as acid and do not attack the metals of the container as badly as other products which are entirely fresh and sterile. Probably an excessive amount of tin or iron in pie stock, butters, jams and similar materials, may indicate that the product has been made from canned material which

has attacked the metal of the container to such an extent that it could not be sold as canned food, whether decomposed or not. In the absence of evidence of decomposition probably it may be held that in working over such products in this manner their inferiority is concealed and for that reason their sale is illegal.

The charge of selling food containing "filthy, decomposed or putrid" material is a very serious one and its full meaning should be preserved. This can only be done by limiting the application of that term to products whose decomposition can be demonstrated.

The evidence of tin is obviously not an indication of decomposition and to hold it *prima facie* evidence of decomposition is unnecessary as a precaution and would weaken the law and lessen the sense of fairness and justice so necessary to its proper enforcement.

President James H. Wallis: The two Commissioners, Dr. Jaffa of California and Mr. Saunders of Virginia, who were to have led the discussion on Dr. Bigelow's paper are not present, so that the discussion is now open to the main convention.

Mr. R. E. Doolittle: Mr. Saunders is present, Mr. President.

President James H. Wallis: Excuse me, Mr. Saunders is present. I did not see him. Mr. Saunders, you are billed to open this discussion.

Com. W. D. Saunders: I think you were right when you said I was not present, Mr. President, because I have not prepared a paper on this and I do not think it would be fair for me to make any remarks upon the subject at this time.

Dr. Chas. Caspari, of Maryland: I would like to ask Dr. Bigelow a question. The State of Maryland is very largely interested in the canning industry. We have between four and five hundred canners and it is no small matter to keep an eye on all of them and to keep them in good shape. In listening to that paper I was very much impressed with the discussion about springers. We have had very recently a large lot of blueberries brought in which the packer claimed were springers and they were apparently so, but upon opening them up we found there was a continuous escapement of gas in small quantities near the center of the can and there was no disagreeable odor there but we found that the amount of tin taken up by the fruit was quite excessive, decidedly above that laid down by the government as permissible which is, I believe, 300 milligrams per kilo. These show between 500 and 600 milligrams. The packer claimed these goods were in a sound condition and asked permission to work them over. It occurred to me that a condition of that kind, even if it comes under the head of a springer, is hardly permissible and I would like to ask Dr. Bigelow what he thinks when springers show evidences of gas disengagement in the center of the can and where the amount of tin taken up by the fruit is quite considerable. Would Dr. Bigelow consider that fit for subsequent use?

Dr. W. D. Bigelow: As I have already said, this subject is very complex and there are a number of phases of it which I would liked to have taken up but which I did not feel I had time for—and that was one of them. There are two classes of springers. One is caused by overfilling the can and one is caused by pressure due to hydrogen generated by the action of acid fruits on the metal of the can and blueberries attack the metal badly. This lot you speak of might have been springers of the second type. As a rule when you find bubbles of gas given off throughout the

mass, it shows bacteriological decomposition and I think the goods ought to be condemned but in such a case you can always get additional evidence. You have the microscope and you can find bacteria, yeasts or molds. You can find out if the bacteria are there and alive and acting. If it is yeasts, you can find alcohol present and in a product of that sort the proof of decomposition is not a difficult matter by the methods we have now at our disposal and so I say I would go farther and get this confirmatory evidence.

I would expect if I found bubbles in a can of fruit to such an extent as to produce a foamy appearance—

Dr. Chas. Caspari: Yes.

Dr. W. D. Bigelow: I would fully expect to find evidences of decomposition. I regard that as an evidence of decomposition.

Now as to the amount of tin present, that is a subject I don't know as much about as I thought I did awhile ago when I found salts of tin insoluble. We found that the major part of tin is insoluble and I am more concerned now about the iron in a can than the tin.

Dr. Chas. Caspari: On the face of it, then, you would hardly consider the cans suitable for condemnation on account of the tin content?

Dr. W. D. Bigelow: I don't know. But in my mind it reaches that point when the amount of iron dissolved becomes such as to be evident to the taste and to impart its quality to the food—then I feel that it is certainly no longer suitable for sale, when it has an effect on the quality of the food.

Dr. Chas. Caspari: The claim has been made frequently with us by canners that under such conditions as I have named that they should be allowed to retain the goods and use them over again for other purposes and I have held that that was not proper, but I should be very glad to change my opinion on the basis of better knowledge on the subject from experts like yourself.

Dr. W. D. Bigelow: When decomposed, the food should be destroyed. I feel that very strongly; but I also think that a great many mistakes have been made in regard to decomposition. I regard that as a very serious charge and for that reason action should be taken all the more surely and we should be very careful not to bring that charge when it is not true, is not justified by the facts.

In the instance you cite, Dr. Caspari, there would be no difficulty in securing evidence of decomposition. But to put out old goods which have been reprocessed I don't regard that as a proper practice in manufacturing foods for sale.

Dr. Chas. Caspari: Has it occurred to you, or do you hold an opinion on the question—it was argued in my office some time ago that a springer was an incipient swell, that it was a baby form of the second conditions. Do you hold that opinion?

Dr. W. D. Bigelow: No, that is not true. The reverse is true, that every swell has gone through the stage of being a springer. But swells develop very rapidly, and the most of them develop two or three weeks after canning, so that if you find after the goods have been shipped that a considerable proportion of the shipment is springers you can know that if such a large percentage were going to be swells they would have developed already. I would examine

those springers very carefully then. But where you find that goods have been shipped, have been manufactured long enough to have been shipped out, and contain a great many springers you will find them to be sterile and sound.

Dr. Chas. Caspari: We endeavor to be as fair and lenient as possible in Maryland to the canners and our efforts, I am glad to say, have met with very hearty response from the canners, but occasionally we do strike a snag and in the case of apples and fruit generally questions have arisen from time to time, differences of opinion between the canner and the department. We claim that swelled apples should be condemned and we do condemn them and the question came up as to how they should be disposed of by the canner because the Maryland law says that a decomposed product cannot be used for man or other animal, and the practice has been to feed the decomposed products to hogs and while we all have due respect for the hog we hardly feel like feeding him decomposed tomatoes and so I stopped that practice pretty effectively. But what shall be done with goods of that kind?

A good many returns come in at this season of the year and we have at times very large quantities come in there in the form of swells, which the canners desire to get back to the factory in order to establish their identity to settle claims and especially during June we had a great many cases of that kind and while at times I dare say the action the department takes may seem a little severe, we think it is better to err on that side than on the other.

Undoubtedly conditions have improved wonderfully in the state of Maryland and we are going to do still more in the next year or two. The new sanitary inspection law is going to be a great help to us in Maryland in our efforts to improve conditions because I think that a great many of the difficulties we meet with in products of this nature are due to insanitary conditions back at the place of production.

I was very glad to learn from the paper you read, Dr. Bigelow, the facts in regard to the availability of this food in what we call "springers," and that is quite an important piece of information for me and I should be very glad to use that in Maryland.

Dr. W. D. Bigelow: Just one point I wish to bring out in response to a question of Dr. Caspari's, which I partially answered—that is the question about a springer being an incipient swell. I was in Dr. Caspari's state last fall and I went into a sweet potato canning factory. I asked the proprietor if he had much trouble with springers. No, he said, he had had trouble with only one shipment. He sold one shipment the previous spring in Baltimore, and instead of sending the goods into consumption there, the man he sold them to had sent them to Texas and the consignee there had refused to accept them and sent them back and they came back (in hot weather) all springers. He said he would go and get some of them and show them to me. He was gone about half an hour. It was rather a cold day and there had been a frost the night before. I waited around and finally he came back and said, "I can't find a springer in the lot and they were all springers when they came back last summer."

The difficulty was insufficient exhaust, leading to expansion, and the production of springers in hot weather.

They were perfectly sterile and in cold weather were normal in every way.

Dr. Chas. Caspari: Would you place any value at all upon the chemical examination of canned tomatoes?

Dr. W. D. Bigelow: In canned tomatoes I think a decrease in citric acid would indicate decomposition, but I have seen very few cases of decomposition in canned tomatoes. Tomatoes don't act on the metal. Consequently the only class of springers we have to deal with in canned tomatoes are those due to overfilling and I have not seen many of them.

Dr. Chas. Caspari: We have found in a few cases that the citric acid content has fallen to below that quantity which is normal where the lactic acid has gone to .06 per cent.

Dr. W. D. Bigelow: That indicates decomposition in tomato pulp.

Dr. S. J. Crumbine: Dr. Bigelow has said that the presence of excessive tin in products made from canned goods does not necessarily indicate decomposition. I would like to ask a question about that, and it is this: Is it commercially profitable or is it customary to make jams and marmalades and other related products of that kind from canned goods and if it is customary or commercially profitable to make these articles from canned goods, when such products show excessive tin, and are put up in glass, isn't that evidence of something rotten in Denmark?

Dr. W. D. Bigelow: I think in such a case the presence of tin is probably an indication that canned food has been used for that purpose which could not have been sold as canned food. It is not complete evidence of that fact, but it is an indication of it. I would not say decomposed food had been used because there is a great deal more fruit in bulged cans due to the generation of hydrogen because of the action of the fruit on the metal than due to decomposition, but I think even such products used for jams, pie-fillings, etc., should be condemned. I think they are largely springers or if they appear to be swells because the top of the can is "hard" instead of being so "soft" you can push it back with the fingers, even that distension of the ends of the can is due to the action of the acid in the fruit on the container. I don't argue that they ought to be used as food. The consumer will refuse to buy such cans and they become unmerchantable in that form. The flavor would be ruined by the iron taste and it ought not to be possible for a manufacturer of by-products to take a product that is in such form that he can't sell it as such and conceal its inferiority and sell it in another form, such as a jam.

Dr. Chas. Caspari: He should not be allowed to work it up into another product.

Dr. W. D. Bigelow: I think that clause of the law "which conceals damage or inferiority" is violated by that practice, provided the product is one which could not be sold in its normal form and I think it can be reached under that clause.

I would not say it would not be economical to make over any canned food. In the last year we have seen so much canned food sold below cost of manufacture great plenty being sold at such a low price that the season following it might be economical to use some of those goods in place of fresh fruit, so I would not want to say that a canned food which was normal could never be used in the manufacture of the products mentioned. But I would regard the presence of tin as very suspicious and when present in large

amount, it would bring the product under the clause mentioned. The use of decomposed food is a serious matter and we ought not to minimize its danger but, more than that, the charge that a product is decomposed ought to be restricted to cases where we are sure that the product is decomposed.

Mr. Geo. B. Taylor: If you should find that a lot of canned goods is puffed; that the gas is heavy; and that the odor and taste both indicate spoilage, do you think any further examination is necessary before condemning them?

Dr. W. D. Bigelow: I don't think so, but we have to be careful how we judge.

Mr. Geo. B. Taylor: We had a case in Louisiana just before I came away. We seized a lot of puffed canned goods. The odor and taste were bad. We then sent out notices for a hearing. At the hearing the attorney for the defense complained that the examination was entirely incompetent because we had not made a chemical and a bacteriological examination. We are going to court on that very subject. The attorney had an expert's report, which stated that the goods were apparently not injurious to health. It did not say they were not decomposed, however. We are going to court on that question because we have all the authorities, including Dr. Bigelow, with us.

Dr. W. D. Bigelow: I would be very glad to see my paper used in such a case.

Dr. S. J. Crumbine: What becomes of swells the retailer finds on his shelves and sends back to the wholesaler? Are they sent in to the factories to be worked over? Should they ever leave the state? The Commissioner might not know anything of this. Would the wholesaler favor a law to give jurisdiction to the Commissioner in the state in which those swells were found so that the wholesaler would not be obliged to give credit for returns to the retailer for claims on these goods unless on the certification of the Commissioner? It is a plan for the purpose of having a food commissioner know what is going on, and to enable him to keep an eye on the disposition of such goods.

Dr. W. D. Bigelow: That is a thought that had not occurred to me. But this suggestion by Dr. Crumbine brings up one of the greatest difficulties the canners have to contend with. They protect their customers by a guaranty that they will reimburse them for all swells that occur within a certain time after the sale is made. Now it very often happens that the swells on older goods are returned to the canners, and they have to take them, too. Very often they do accept older goods than the guaranty covered. The retailers send them back even after they have kept them on their shelves for a very long period of time.

Now the question comes, why do the canners want these goods back? Why do they pay freight on them clear back to the factory, a long distance sometimes. We immediately suspect that they want to make some illegal use of the product. But I have been in several canneries when such a shipment came back and I must admit that I was very much surprised at what I saw.

As a usual thing (I think I may safely say in the majority of cases) the shipment does not consist of swells, but of cans that are perfectly normal except that the label is soiled or discolored. Sometimes they are not the goods of the packer at all. Sometimes they are a different product altogether from what he puts

out. The dealer makes a claim for reimbursement on tomatoes, perhaps, but the cans returned are peas to a man who never packed peas, and the cans are labeled "Peas."

The reason for mistakes of this character is that this work of sorting out swells is put on the cheapest sort of labor they have. The result is the packer is oftentimes called upon to reimburse a retailer for swells in a shipment of goods he never made at all, goods put out by somebody else and it is even said that several canners are called upon to reimburse a dealer for the same goods and probably for goods that are not spoilt at all.

Now I anticipated that this question would probably be asked me and I put in my pocket the other day copies I had made of two letters that come into the office on this very point. They are from a firm in Maryland, well known by Dr. Caspari as one of the best firms of his state, and I would like to read one letter to show the character of the firm and the other letter to show their experience with matters of this very kind.

Research Laboratories,

National Canners' Association,

Washington, D. C.

July 3, 1914.

Gentlemen:

We are sending you today by parcels post four samples of goods. Will you not kindly make an examination of these four tins and advise us whether or not they are safe to be eaten? Of course, we know this corn looks very badly and we were going to throw it away, but if there is nothing deleterious to health in them we thought it might be a better plan to give them to some institution for the poor, but before doing so want to be sure that there would be no chance of their being hurt by the goods. We have had several samples examined once or twice before by chemists and they report them all right but we want to again assure ourselves before giving them to the institution we have in mind.

Thanking you in advance for this courtesy,

Yours very truly,

Mr. Frank E. Gorrell, Secy.

National Canners' Association,

Washington, D. C.

July 7, 1914.

Dear Mr. Gorrell:

I do not know whether or not we are the only people troubled with the question of swells and the method of examining them, but I am free to admit that we have a good deal of trouble along these lines.

Our swell claims are, of course, not of any excessive cash value as we pack only beans, peas and corn, none of which, as far as I am informed, run a very high amount of spoilage, but on the other hand, we have all kinds of trouble with people returning us goods as swells, which are as good as the day we shipped them out except for needing a new label and a little cleaning up, which condition is usually produced by bad storage facilities.

I would like to know if the National Canners' Association has ever taken any action along these lines and whether their Publicity Bureau has looked into the matter of trying to help the canners in making a demand for better conditions, a trade demand and not an individual complaint. I recall very clearly a splendid article written by a Baltimore canner and published in the Canners' Magazine, which took in all of these points.

To show you the way these things are done, last year we had one lot of seven cases shipped back to us reported as swells, the commodity was corn. Out of the seven cases there were six cases perfectly good, needing a new label and a little care to put them into perfectly salable conditions; 3 dented cans, and 21 tins that you can conceive of foods canned in a season of swells or leaks. This percentage holds good in a number of claims which we have had a chance to examine and, as all other concerns we ship goods to such distant points that sometimes it does not pay to have them returned, we know that the larger percentage of our so-called swell bills are illegitimate claims. Further than this, the merchants as a rule deduct the freight from all their shipping points to the home house in case these goods are requested to be centralized.

Any assistance I could give you along these lines would be gladly rendered and we would like to know the status of the canners' stand on this subject.

Sincerely yours, ———

Now one thing more: The cans are all sold under a contract which permits two cans in each thousand of each size to be defective. If a larger number than this is defective the contract requires the can maker to reimburse the carrier not only for the cost of the cans, but also for the value of the food contained—that is, the factory cost. This sometimes amounts to a great deal, but the packer cannot make a claim for defective cans unless he has the cans as evidence.

Now the canners would certainly welcome any plan that would save them this freight if it could be arranged and have the demands made for reimbursement handled properly. I am sure they would be very much interested in any plan that might be suggested for that.

If it is practicable to have all returns of that kind approved by the Food Commissioner in the state in which the swells are found, I don't see myself why it should not be done. I should think it might handicap the matter if inspections were slow—if the inspector was slow in coming around to attend to the matter because in some cases decomposition proceeds very rapidly and then the grocer doesn't want to hold them long because they become annoying. But all details of that kind could be worked out, I suppose.

Com. G. G. Frary: Concerning this same trouble, the commissioner who preceeded me corresponded with a large number of packers and jobbers regarding a plan of procedure, asking whether it would be satisfactory to take up swells and open the cans and destroy the goods and send the labels to the jobber. The jobbers were unanimously opposed to that plan of procedure. They said they had to have the goods intact shipped back. I went over that correspondence and as a result of the opinions they seemed to hold in the matter, I did not adopt that plan. I had rubber stamps made, reading "CONDEMNED" in large letters, and then underneath, "This food must not be used for food after (giving the date) in South Dakota," and signed. We stamp that on every swell we come across and it has worked out very satisfactorily. The retailer holds those goods and gets credit for them if he can—but I think the real benefit of this lesson is the education of the retailer against overloading his stock. It is a shame the way they do that. We get in enough stuff to last four years. The retailer likes to keep his shelves full and he takes goods off the front layer as he sells them and

when he gets new goods just puts them in the front and shoves the old ones back and as a consequence you always find the swells back against the walls. And that whole thing originates through the fault of the grocery salesman from the canner or jobber because he wants to send in large orders and get his commission, and I believe the solution of the whole difficulty lies largely in the education of the retailer to practice more care in buying and not to overload beyond what he knows he will need.

Dr. W. D. Bigelow: In regard to that rubber stamp, Dr. Frary, were your inspectors careful to put that only on goods which actually were swells, and not to put them on cans because they had discolored labels and looked old?

Com. G. G. Frary: No, they were careful what they put it on.

Dr. W. D. Bigelow: That would prevent the great difficulty complained of in the letter I read.

Dr. Bigelow: Yes, that is true, I think. I am not sure, but if the action of the metal had gone so far that you have there what appears to be a swell; but if it is merely a springer I don't think that is true.

Dr. Frary: The difficulty is in telling, without opening the cans, and another one was hard—

Dr. Bigelow: I would condemn them both.

Com. G. G. Frary: Yes, and your canner had this trouble from jobbers who sent back goods that did not come from that canner. This would be only human nature, though, I suppose. I would like to tell you about an instance of that kind I happen to know about. I received several letters from one of the jobbers complaining to me that he had lost money because he had received returns of shoe-polish and plug tobacco, and I wrote back and told him that I had considerable difficulty in securing good inspectors and he must overlook a few mistakes caused probably by a desire on the part of the retailer to get a little out of it. But we don't condemn goods on account of a stained label. That don't harm the goods any, except perhaps in the eye of the purchaser.

Now in the case Dr. Caspari spoke of, is it not possible that some of that gas he spoke of finding is dissolved hydrogen under pressure?

Com. G. G. Frary: Yet you cannot detect the gas to the taste, but in the other one you can taste it and the alcohol in it would make fine wine—especially in the case of blackberries. The difficulty we have met with is to tell which is which from the outside. The question which occurs to me is why berries cause so much trouble—is it the acidity or the seeds or what?

Dr. W. D. Bigelow: I don't think the seeds have anything to do with it. Of course some fruits are more strongly acid than others. Blueberries grown in some sections of the country are very acid, and there are sour cherries and some plums attack the metal a great deal more than others, fruits are different in the same localities at different times. This is a matter you cannot determine entirely by the variety of the fruit. I know of one firm in New York that has two canneries fifteen or twenty miles apart. In one plant they have had a great deal of trouble from pinholing. At the other factory they have had no trouble at all. They don't know what causes it; there is no difference in the process. There is something there we don't understand about the action of the fruit on the metal. It may be that the acidity is higher in one place than the other. We don't know.

Dr. John Frick of Tennessee: I would like to ask

if the inspector is justified in condemning all swells. Are you able to tell whether the stuff is fit for food or not?

Dr. W. D. Bigelow: I think that a swell caused by decomposition should always be condemned. Certainly a springer where caused by the action of the contents on the metal where it has gone so far it may be confused with a hard swell should be condemned. I think there is no question of that. With regard to other springers that have not gone that far, I should cut the cans and judge of them then. I think there is no difficulty in telling their condition by the odor, for trained men, that is—even when such goods would be accepted by many consumers they can be distinguished by an observant inspector. There is no difficulty in his telling whether it is decomposed or not. With manufacturing goods it is immaterial whether the raw product was swells or decomposing fresh fruit.

Dr. John Frick of Tenn.: I understand there is no difference.

Dr. W. D. Bigelow: I was speaking of the appearance of the food. Jams, pie filling, etc., manufactured from material that has begun to decompose on the market and is no longer salable as fresh food is what I have reference to. If that food is worked up into a by-product in such a way that the decomposition is concealed I would take the same objection to it as if it were a swell.

Mr. L. M. Tolman: Is it a wise matter to allow manufacturers to reprocess springers, then? Can you do it with any safety at all?

Dr. Bigelow: The idea of the question is that the manufacturer may be influenced by his interests and reprocess goods that are beginning to decompose? I would say there is just the same possibility of that as when he puts up his goods fresh. There is a difference in the degree of trimming and sorting at different factories when goods of that kind are prepared from fresh goods, and the manufacturer who will use rotten material in his fresh raw product will probably do the same thing if he is working over cans which were springers.

Mr. L. M. Tolman: The point is, can you tell?

Dr. W. D. Bigelow: I think you can, yes. I think there is no difficulty in doing that. A man who has made a study of these goods, like a superintendent of the canning establishment or a buyer, is very competent to handle them—or an inspector who has had experience in this matter and given it attention.

President Wallis: It is getting late and we must be getting on with our program.

Com. G. G. Frary: Well, this is one of the most important questions we have before us, I believe. I would like to ask Dr. Bigelow if in the case of a vegetable or any meat product, a swell should not always be condemned.

Dr. W. D. Bigelow: Yes, I think a swell should be condemned. I would condemn it on general principles.

Com. G. G. Frary: Anything that approaches a hard swell in the case of vegetables?

Dr. W. D. Bigelow: I should condemn them whether they were vegetables or fruits, but I would not call them decomposed unless I had positive evidence that they were decomposed. There is no question but that the odor is very pronounced if decomposition has occurred in the can. (Applause.)

President Wallis: I don't want to be arbitrary and cut the discussion on any paper short but it is getting

late and I think we should get on with our program. However, if I appear so, I will gladly entertain a motion to continue the discussion of any subject.

In the absence of any motion to that effect I will call on Dr. Taylor of Louisiana to lead the discussion on Dr. Harms' paper on the Practical Methods in the Analysis of Food Products. Dr. Harms is not present to read that paper.

Mr. Geo. B. Taylor: I saw that I was on the program to discuss this paper, Mr. President, and so I wrote to Dr. Harms of Utah and asked him to let me see a copy of his paper so that I could discuss it. He wrote back, however, and said that he was not coming to attend the convention and had not a paper prepared.

As to the subject, though, I don't know of any practical methods. I believe that the Association of Official Agricultural Chemists' methods and the methods and the methods of the Pharmacopœia should be used for chemical and bacteriological examinations.

Now if by "practical methods" you mean methods that might assist an inspector in his work of inspection to get samples, I think that is a good idea. In the work of milk inspection, I believe he should carry a lactometer and take the specific gravity of the milk he is testing. If it shows abnormality, he should take a sample and measure a cup of it out and there is a simple cylinder method that can be used by the inspector to determine the number of bacteria. There are several methods that might assist the inspector in taking samples but I believe in the laboratory the official methods should be followed absolutely.

President Wallis: Is there any discussion with regard to the address of Dr. Taylor? If not, the next subject on the program is a paper by Dr. Ladd of North Dakota on Egg Albumen in Baking Powder.

Dr. Ladd: What I have to say on this subject I have reduced to writing and will present the same in that form.

EGG ALBUMEN IN BAKING POWDERS.

BY E. F. LADD,

Food Commissioner for North Dakota.

During the past year and a half or more there has been a great deal of discussion as to the use of egg albumen in baking powders, and at times, bitter controversy has raged as the result of commercial trade wars that have been injected into the question by the manufacturers themselves. In fact, it would seem that the manufacturers have endeavored to befog the situation by injecting, as far as possible, these trade controversies or factional fights that have characterized the baking powder industry for the past fifteen years or more. These trade controversies, however, have no place in the discussion and consideration of the question as to whether egg albumen is a desirable product in baking powders, or whether the use of the same has been wholly for purposes of deception and fraud, and whether baking powders containing egg albumen or like products do tend to deceive or may be used to deceive or mislead the consuming public, and, even at times, the retail dealer.

Ordinary baking powders do not contain egg albumen. There is no record or line of authoritative tests that have indicated any advantage or benefits arising from the use of egg albumen in baking powders. In fact, the unbiased experiments thus far made, both in a practical way and in the more careful studies, have all tended to indicate that no benefits accrue from the use of albumen in baking powders.

Professor Fitz of the Kansas Agricultural College, in summing up the results of oven tests made with both albumenized and non-albumenized baking powders, concludes:

"In so far as conclusions can be drawn from these experiments, the presence of albumen is detrimental. The amount of injury caused by it is very near the limit of experimental error.

"The apparent quality of the powder containing albumen, as

indicated by the water glass test, is entirely out of proportion to its actual quality.

"The effect upon specific gravity as indicated by the tests with ether and chloroform, is infinitely small, any differences being in favor of the albumen-free powder. The effect upon quality is in favor of albumen-free powder.

"Upon the determination of carbon dioxide albumen has no effect."

Again, experiments made by the State Chemist of Idaho, carrying on a series of baking tests, led to the following:

"My conclusion from the above experimental work is that the addition of egg albumen to the baking powder used in baking cup cakes was entirely without any measurable result and without any observable effect that could be seen by two experienced cooks."

The experiments cited are in harmony with tests made by others and generally confirm the conclusion of those who have carefully looked into the question that the addition of albumen to the baking powder adds nothing of value in the way of increasing the volume of the loaf or ensuring a more uniform liberation of the carbon dioxide. In all baking powders the active constituent is carbon dioxide, resulting from the action of the acid acting ingredient upon the basic portion, sodium bicarbonate. The albumen, therefore, adds nothing. In bread-making the gluten of the flour furnishes the elastic albuminous (gluten) adhesive material, and the egg albumen present in the baking powder adds nothing appreciable in the way of increasing the loaf volume.

If we examine as to the amount of egg albumen present we find something like 0.10 to 0.20 of 1 per cent on the average, or approximately 0.15 of 1 per cent of dried egg albumen; or, in one pound of baking powder there is present about 0.14 of an ounce of egg albumen which, at 75 cents per pound, would furnish an added cost of 0.01 of 1 cent. Certainly, therefore, the adding of 0.14 of an ounce of albumen to a can of baking powder adds no material value to the nutritive quality of the same.

The claim is further made that the use of egg albumen in baking powder enables the salesman to detect whether the powder has deteriorated or not by standing on the shelves of the dealer. Since the demonstrator carries a small vial of powdered egg albumen to be used when need be, no hardship would be worked by adding a pin-head of this albumen to his own powder for making the tests, as he now does to other non-albuminized baking powders and thus to determine whether the powder has deteriorated or not, providing the test really has any great value for that purpose. This point has not been convincingly demonstrated by the advocates of this class of baking powder.

The claim has likewise been made that since the sale of albumenized baking powder is not prohibited under the provisions of the National Food Law, the States should not interfere with the same. Such argument is not based upon sound reasoning, inasmuch as the Federal and State laws are unlike in their requirements and each can enforce the law only so far as there is a statute or provisions for enforcing the same. The North Dakota statute provides that they may adopt or fix standard of purity, quality or strength when such standards are not specified or fixed by statute. The law specifically requires that food products shall not be labeled, branded, coated, colored or stained whereby damage or inferiority is concealed so as to deceive or mislead the purchaser, or be falsely labeled in any respect.

The impression is gained, when a product is labeled as composed of soda, acid phosphate, corn starch, alum and white of egg, that these ingredients are each present in sufficient quantity to serve some useful purpose; and, if we are to judge from the claims made by some of the manufacturers and their demonstrators, it would seem that the impression is prevalent that the egg albumen in the baking powder takes in part the place of eggs in the baking of articles of food, whereas, in fact, the amount present is so insignificant that it serves no useful purpose whatever. The claims made for the egg albumen are not warranted. One needs only to go through the literature of the baking powder advertising to find to what extent deception and fraud have been practiced not only with regard to the use of egg albumen, but the claims made concerning the properties and ingredients or residues resulting from the use of various baking powders in food products. Again, if we take the literature as furnished to the salesmen and demonstrators and study this we shall see a condition which is well-nigh akin to that resorted to by the manufacturers of the most worthless types of patent medicines.

Do albuminized baking powders tend to mislead or deceive the purchaser when these products are tested by the demonstrators along with non-albumenized baking powders? By

this test the impression is gained that such albumenized powders are superior, when, in reality, they may be greatly inferior in leavening power, since the presence of a minute amount of albumen in the cold water test gives the impression that a far greater leavening power can be obtained from the powder, which in reality is the more inferior of the two.

In other words, by the use of albumen in baking powders, the powder has been so treated as to make it appear to be better than it really is. The actual strength of albumenized powders when compared with the real strength or excellence has been made to appear to possess a strength or excellence in excess of its actual quality. In other words, by this treatment the baking powder has been taken out of the class to which it properly belongs and made to appear to belong in a better class or variety. If this be true, then inferiority has been concealed and advantage is taken of this fact to gain a trade advantage, thereby doing the ultimate purchaser an injury.

Let us take for example an apple of second class variety or grade that has been so treated, or stained, or coated as to make it appear to be of another variety or class. Then has not inferiority been concealed and the apple made to appear of a first grade variety, thus misleading the purchaser? Let us take the ordinary baking powder and divide it into two parts. To one of these parts we add albumen. Now, let us make the so-called water glass test. The part to which albumen has been added is made to appear much better than the other; that is, it *seems* to possess many times its actual strength. Its inferiority is concealed by adding the albumen and the purchaser is led to believe that it has a tremendous leavening strength, when, in fact, it has only very ordinary leavening power. By this means the manufacturer is in position so that by the expenditure of a fraction of one cent he has made a net profit of from five to eight cents, and this as the result of his methods of business and by making his baking powder appear to belong to a better class than that in which it really belongs.

The American Food Journal, in discussing editorially the baking powder situation and the part of the food officials who are trying to put a stop to this kind of deception and fraud, says:

"A few manufacturers who use egg albumen in their baking powders have attempted to go right ahead with the sale of the product in defiance of the ruling and warnings of the food officials. In states where rulings have been issued they have, with the exception of one or two States, started to fight the food commissioner in the courts.

"This is a mistake of judgment which reacts not only upon the misguided users of albumen but upon the honest manufacturers of foods who are striving to sell an honest product in an honest way."

The editorial then concludes:

"Let all manufacturers comply with the rulings of the food commissioners and cease the use of albumen. It serves no purpose but to deceive."

The President: In explanation of my not calling on Dr. Abbott to discuss this paper, as he is on the program to do, I wish to make a statement. Dr. Abbott is now occupying an executive position in the United States Department of Agriculture and feels that it would be improper on his part to discuss this subject while there is legislation pending now on the subject. We will therefore listen at this point in the program to a paper on the same subject, "Egg Albumen in Baking Powder," by Dr. H. L. Jackson of Idaho. Dr. Shannon will read this paper now. This is a paper brought over from Section B but it is one the executive committee felt was of general interest and should be read before the entire convention.

This paper was read by Mr. Shannon, Secretary of Section B:

SUMMARY OF PAPER READ AT THE PORTLAND CONVENTION OF FOOD OFFICIALS, JULY, 1914.

BY H. LOUIS JACKSON,

State Chemist of Idaho.

The results of three series of comparative baking tests were presented. The plan was to bake products in two batches using commercial bakers' ovens and having all work done by professional bakers. Every condition in any given baking was maintained as uniform as possible for the two

batches. The same baking powder was used in a given baking but the powder used in one of the two batches contained egg albumen, that the other batch contained no egg albumen and the bakers were always ignorant of the nature of the baking powder. The specific volume of the products was obtained in the laboratory and the bakers judged the cakes or biscuits shortly after they were baked.

In the first series albumen was added in amounts of 0.5% to 20% of the weight of the powder, cup cakes were baked. These contained fresh eggs and a cream of tartar baking powder was used. Two hundred forty cup cakes were measured from eight bakings. The weighted mean, average specific volume, for cakes with egg albumen was 3.10 and for cakes without egg albumen, 3.11. The conclusion from this series was that, the addition of egg albumen to the baking powder used in baking cup cakes was entirely without any measurable result, and without any observable effect that could be seen by two experienced bakers.

In the second series biscuits were made and an alum-phosphate powder was used. There were four bakings and egg albumen was added to the extent of 0.1, 0.2, 0.5 and 1.0% of the weight of the powder. 85 biscuits with egg albumen had an average Sp. Vol. of 2.548. 82 biscuits without egg albumen had an average Sp. Vol. of 2.55. No fresh eggs were used in this or the third series.

The third series consisted of six bakings with two batches in the first two bakings and three batches in each of the other bakings. Five different powders were used, all were alum-phosphate powders and one contained egg albumen as manufactured. The quantities of albumen present in the powders were 0.17, 0.2, 0.5 and 1.0%. Some of the dough was baked at once and some of the dough was kept five to six hours and then baked. Some biscuits were baked at the proper temperature and some at far too low a temperature to secure good biscuits. Sp. Vol. of 271 biscuits with egg is 2.63, of 238 biscuits, without egg, is 2.59.

As a final conclusion from all the work done, it is the opinion of the writer that when bakings are carried out under normal condition with the endeavor to make a good product, instead of trying to make conditions unfavorable, that, under such normal conditions, his work has not demonstrated the usefulness of egg albumen in baking powder, and especially in the very small quantities usually present, i. e., from one to two-tenths of one per cent.

When the temperature of the oven is too low for baking biscuits properly, or when the dough is allowed to stand several hours before baking, then the presence of egg albumen in the baking powder is advantageous and produces a much better product than the non-egg powder and the improvement is more marked the greater the amount of egg albumen in the powder.

The President: The next paper is by Com. F. H. Fricke of Missouri. Mr. Fricke isn't in the room. While Mr. Shannon is looking for him we will listen to Dr. Crumbine's paper on "False Advertising."

Dr. S. J. Crumbine of Kansas: At this point I want to explain that before preparing this paper I was requested by the Board of Advertising Censorship of the Kansas State Editorial Association to prepare a paper on the same subject. I stated that I would be very glad to accept, particularly in view of the fact that I had also been requested to prepare a paper on the subject of False Advertising to be delivered at the time of this convention in Portland, Maine. I asked permission to present my views in the shape of reading this paper because I didn't want to make any statement before this Association I would be unwilling to make before them and, for the second reason, I said, if you can agree with the statements I do express it will give some additional weight to what I say. So with that, I am enabled to add this post-script to the paper—and I will say that it seems to me that any value the paper might have is in the post-script here appended.

FALSE ADVERTISING.

By S. J. CRUMBINE, M. D.,

Secretary Kansas State Board of Health.

It is becoming increasingly evident that the national and state food and drug laws have failed and will continue to fail

to afford the fullest protection possible to the consumer against false and fraudulent food and drug products, until these laws are supplemented by so-called "False Advertising Laws."

False and misleading statements, designs and devices that appear any place than upon the label, or attached to the package, or false and deceptive methods of advertising used by designing agents, dealers, salesmen or manufacturers, cannot be reached or prevented by resort to the food and drug law, and thus, in many instances, the public continues to suffer by reason of gross misrepresentations of one sort or another.

In the midst of these discouraging conditions, it is extremely gratifying to note the rapidly awakening ethical sense of the publishers of the country, as indicated by the growing censorship of advertisements received, and the earnest and serious consideration of the question of false advertising by the associated advertising clubs and the editorial associations of the United States and Canada. Like many another important thing that seems simple when the answer is known, is the fundamental fact underlying the code of ethics for newspaper advertising recently adopted by the associated advertising clubs. The five articles adopted and embraced in this code may be summed up in the old maxim which used to adorn our copy books and was used as a copy for penmanship, albeit the author must have had in mind the fixing of a fundamental truth in the minds of the students when this maxim, "Honesty is the best policy" was adopted. These five words are now the guiding principle by which some of the keenest and quickest thinking men in the country rule their conduct—honesty, not only because it is ethically right, but because, in plain English, "it pays." All this talk about the psychology of advertising and the fundamentals of publicity resolve themselves, after all, into just such rudimentary terms as expressed in the above quoted maxim.

In the early days of advertising he was the best publicity man who could most successfully play upon the gullibility of the public. The circus billboard was the accepted model, and the hoaxing tactics of that arch-showman, P. T. Barnum, was the prevailing mode. After a while it became apparent that "It is impossible to fool all the people all the time," and that every person fooled becomes not only a lost customer, but an active enemy against this showman type of advertising, as well as a "knocker" upon the advertiser. Then came the broad-minded pioneer honesty—the merchants who not only had confidence in their wares and saw that advertising was the best way to talk about them, but who scorned to misrepresent or exaggerate their value, and now comes the same type of newspaper men, joining hands with these broad-minded and keen sighted merchants, and the dawn of the day of clean and truthful advertising is already upon us.

It was noted that these pioneers of honesty prospered mightily, and their less scrupulous competitors, seeking the reason for such prosperity, are beginning to believe in the copy-book maxim about honesty.

From a public health standpoint, false advertising might be put in two classes: first, that which is purely fraudulent and deceptive; second, that which is inherently harmful. In the first class will come those statements, designs or devices concerning values or quantity which are fraudulent or deceptive and which affect only the pocketbook of the purchaser. An illustration of such kind of advertising is the dealer who advertises that he will conduct a sale on 3-pound canned goods, or on gallon packages of syrup at reduced prices when, as a matter of fact, the canned goods do not weigh three pounds nor the syrup packages measure out one gallon. An investigation of the label will not reveal any false statement thereon as to the correct weight or measure, and thus the food and drug law has not been violated, although the consumer has been grossly deceived by reason of the false advertisement appearing in the newspaper. The responsibility for this class of advertising does not rest with the publisher, as he has no means of knowing the truth or falsity of the copy presented to him for publication. It cannot be charged, therefore, that the ethical code has been violated by the publisher in accepting such advertisements. However, society, through the enactment of law, should hold the dealer responsible and require that statements for the delivery of goods advertised must accord in both quality and quantity with the statements appearing in the advertisement.

Another illustration of the fraudulent methods of advertising is that of certain food accessories companies who seem

to be willing to resort to almost any sort of misleading statement, deceptive method or misleading demonstration to sell their wares or to discredit the value of their competitor's product. The recent spectacle of introducing bills in Congress to prevent the sale of baking powder that may contain this or that article, or to prevent the sale of baking powder that does not contain this or that ingredient, is calculated to create a sense of distressing weariness to all fair-minded people, and then the climax was reached when the franking privilege of the United States government was imposed upon for the purpose of deceiving or misleading the dealers of the country. It seems that some law should be speedily enacted to bring to a termination such nefarious practices, for such people do not appear to have learned the truth and the value of the copy book maxim.

In the second class of false advertising which is directly or indirectly harmful to the purchaser are included chiefly the advertisements of medicines, nostrums or devices for the relief, alleviation or cure of disease. Take, for illustration, on the one hand, those advertisements of nostrums which claim to cure cancer, bright's disease, consumption and other malignant and oftentimes incurable maladies, and on the other hand, those nostrums that claim to cure diphtheria—a disease in which the time element is so important in the application of well-known therapeutic agents which have been universally and scientifically proven to be the only safe treatment—the use of which nostrums or preparations, if resorted to, can only result in greatly minimizing the chance of recovery from such diseases if, indeed, they do not make it impossible for other than a fatal termination. The essayist is of the belief that in the acceptance of this latter class of advertisements the publishers cannot be held guiltless, for every person of average intelligence is quite well aware of the malignant character of these diseases, as well as the futility of the use of some unknown nostrum for their cure.

Another class of advertisements which is capable of great harm to the youth are those so-called "Lost Manhood" preparations. It is not a sufficient defense, in my judgment, to claim that the supposed harm is purely psychological, for every practicing physician has been made keenly aware of the distressing physical condition that many a young man has been brought to by his brooding over imaginary ills. Moreover, a defense based on the above grounds is but an admission of the evil effects of such advertisements, for it is pretty well understood that the influence of the mind has much to do with the physical condition of the body, particularly with the normal functioning of its internal secretions.

Another class of advertisements for which both the publishers and the advertisers must be held equally responsible, is that of the so-called "Regulators," the use of which is really, in the main, for criminal purposes, although the statements upon the label and the directions for its use are so subtly worded as to present a fair exterior with no opportunity to hold the manufacturers responsible under the food and drugs act. Not only are the advertising and the use of such preparations ethically wrong, but they are also positively and seriously harmful. The history of many a young life, if written, would close with a tragic chapter through the use of such infamous nostrums.

With these undisputed facts before us, may we not with confidence appeal to the humanitarian and altruistic motives of the publishers of this country when we ask them to join hands with us in our attempt to blot out the infamy which rests on this latter class of advertising, and to co-operate with us in our endeavors to impress the truth of the copy-book maxim in relation to the fraudulent and harmful class of advertisements. Honesty is the best policy in advertising as well as in other walks of life.

Caveat Emptor (let the buyer beware!)—centuries-old maxim of commerce, aged adage of barter and trade, motto for fraud and deception, and salve for a conscienceless traffic—can no longer be justified under the present standard of moral or business ethics.

Time was when commerce was limited to the interchange of the necessities of life—to the exchange by one person or people of their superabundance of one thing for some other of which they were in need. The transaction was simple and direct between the consumer of one article and the consumer of another, without any conception of profit, or any attempt to misrepresent or lower the quality of either product. With this interchange between many, there arose the necessity of a common medium for basing values, and thus money was born. Then began the practices of deception in values, and those who were thus deceived sought justice or recompense for being cheated and were given the solace—"Caveat Emptor"—(Let the Buyer Beware!)

To those who have no interest in labels, or who believe everything they read in a newspaper or magazine, who blindly purchase foods and drugs without comprehension of their ingredients, we still give this word of warning, but with a different meaning than that of justifying fraudulent methods—"Caveat Emptor"—(Let the buyer beware!)

False advertising is now a crime in Canada. An amendment to the original code has been passed in the House of Commons making it so. This is something the retail associations, together with the advertising clubs have long been asking for. The amendment is as follows:

"Every person who knowingly publishes, or causes to be published, any advertisement for either directly or indirectly promoting the sale or disposal of any real or personal movable or immovable property or any interest therein, containing any false statement which is of a character likely to or is intended to enhance the price or value of such property or any interest therein, or to promote the sale or disposal thereof, shall be liable upon summary conviction to a fine not exceeding two hundred dollars or to six months' imprisonment, or to both fine and imprisonment."

It is recommended that this association appoint a committee to draft a model false advertising law, copies of which should be sent to every food and drug control official on or before December 1st, 1914, in order that uniform and adequate legislation may be enacted in the various states during the coming sessions of the legislature.

Post Script:—

Since preparing this address, it has been my good fortune to have the opportunity of reading the same before the Board of Advertising Censorship of the Kansas State Editorial Association, and I am glad to announce to the members of this association that the sentiments expressed in the paper have their cordial and entire approval.

When the newspaper publishers the country over will assume this high ethical standing concerning false advertisements, harmful and fraudulent patent medicine nostrums and quack advertising, fake doctors will be put out of business for all time. Then we can revise the old time doctrine, "Let the buyer beware" to make it read, "Let the false advertiser beware!"

President Wallis: This paper is to be followed by one by Mr. R. M. Allen of Kentucky.

Mr. R. M. Allen: This is a subject to which I have not given very much consideration at this time or prepared to discuss at this convention and therefore I am not going to attempt but a few remarks upon it.

Ordinarily I am very conservative towards any restriction being put upon the press. I do believe, however, that our reforms will not be wholly accomplished until we prevent mis-statements in advertising, the same as we prevent them in labels.

My reasons for saying that I am conservative towards restricting the press are because of the fact that I wonder if there has not been too much activity in this country starting with bills of restrictions that might some of these days practically amount to throttling the freedom of the press. And I don't believe, in any event, that the law should apply to the editorial or business manager of a newspaper by holding him responsible for statements made in the advertising copy handed in. I believe that such responsibility should be confined entirely to the man or firm whose advertisement goes in the paper.

I am wondering if a lot of these reforms cannot be accomplished through the advertising clubs and press associations themselves, before attempting legislation upon the subject. I think it would be an excellent thing for Dr. Crumbine's committee to get in touch with the national association of advertising clubs, as I understand there is such an organization, and try to get its support. The advertising clubs of America have been doing notable work for several years. And I would suggest that in the event the committee recommended by Dr. Crumbine be appointed, that that committee be instructed by resolution to co-operate with this National Association of

Advertising Clubs and out of that co-operation, decide whether or not legislation upon the subject is actually going to be necessary.

Certainly people have been very much misled through the press in the past. But in Kentucky at least I know this deception is growing less every year and in the matter of patent medicines, for instance, we have been able to accomplish this much needed change through conferences with the trade itself. In Kentucky we construed the law to apply to mis-statements in advertising. Whether we could have sustained our position in court was a question which they raised. But one of the largest patent medicine concerns came into Kentucky submitted their advertising matter to us. It was very interesting to see the system they had. They had a list made up for the whole year and that list was put up on the wall in the room of the newspaper office and every day, day after day, one of these statements was taken off and printed. It was very interesting indeed.

Well, we went over all that advertising copy with them. We made quite a number of blue pencil marks and those changes were made in the copy that was printed thereafter. We had the managers of some other firms come in, too, and we went over with them and marked their copy and we were glad to find that they were willing to make the changes we recommended, so that in such instances the reforms needed were accomplished very smoothly and satisfactorily through conferences, without the necessity of invoking the law at all.

If you will notice the advertisements of patent medicines in the Kentucky press to day you will find that those old extravagant statements that used to be so common are being taken out. A certain kind of whisky today will not give you good blood, like it used to state it would. So my point is, that educational methods should be directed not towards the advertising manager of the newspaper, but towards the man who puts that advertisement in the paper and pays for it. This thing of being absolutely frank and free and plain in your dealings with the people you want to reach has a very far reaching effect.

You would probably say that the man who put out a medicine and recommended it for some disease and did not give the ingredients should be compelled to do so. I remember an instance in Kentucky which has some bearing on that. There was a very wealthy horseman whose baby was sick at the farm and he sent in to town for a physician who specialized in treating children and asked him to prescribe for the child. The doctor looked the baby over and he said that the baby needed some sugar powder and "If you are going in, call by and ask Dr. Smith (the druggist where he usually got prescriptions filled), and ask him to give you two or three sugar powders; give them to the baby and he will be all right."

He assumed that he was talking to a very intelligent man and that it would not be necessary to actually write out the prescription. But the man got to thinking it over after the doctor had left and he said to himself, "My baby is more seriously sick than that doctor thinks it is," and he wasn't satisfied, so he selected another doctor and the other doctor came out to the farm and he looked very seriously at the baby and gave the man a prescription. He said to the man, "You put a boy on a horse and send him in at once and get that prescription filled, and call me up tonight and

let me know how the baby is and I will come again tomorrow."

The man sent into town, gave the medicine to the baby and it got all right.

Going back to his home in New York City that winter it occurred to the horseman that it might be a good thing to get a copy of the prescription and take with him because it worked so well that time. It happened the prescription had been filled by the same druggist the first doctor had directed him to and so he went to see him and asked for the prescription. The druggist gave it to him and then the man asked, "If you wouldn't mind, will you tell me what is in it?" The druggist said, "Sugar powder." And so it is. The psychological effect had a good deal to do with it in that instance. I don't know whether the patent medicine man is not also entitled to use the same treatment if he uses it without harm.

Entering into this new field of trying to control advertising, I think we have a very, very broad problem. And I think perhaps the best way to accomplish the good we are seeking is through the co-operation and help of the advertising clubs themselves and I would recommend, Mr. President, that Dr. Crumline's committee be instructed to seek co-operation from a similar committee to be appointed from the national advertising clubs.

President Wallis: Dr. Street of Connecticut has been making some special investigations into one of these specifics Dr. Crumline referred to in his paper and personally I should like to hear what Dr. Street has to say about it.

Dr. J. P. Street: Well, I think one of the most flagrant of these frauds is Santogen. I have been making some investigation on Santogen for the last five or six months, comparing it with commercial caseine, and with sodium phosphate. In our determinations we used white rats divided into three general series. The first were composed of mature rats, rats fully grown. The second were young rats (about 4-6 weeks old), and the third very young rats, say 3 weeks old. An attempt was made to show whether or not the Santogen would bring back again the rats that had failed to maintain growth, normal growth. That experiment is not yet completed. Almost at the start Santogen carried them down. I expect to get the same thing with caseine. But in a comparison of the prices of the two articles caseine is 10 cents and Santogen \$4.50—and there is no perceptible difference between them. So Santogen may be a valuable preparation, but it is the same as caseine.

President Wallis: With reference to the recommendation of Dr. Crumline that a committee be appointed to draft a model false advertising law, the Chair is powerless to take any action unless authorized by a motion to do so.

Com. F. H. Fricke: I move the Chair be authorized to appoint the committee, a committee of three to carry out Dr. Crumline's suggestion.

Motion seconded.

President Wallis: Gentlemen of the Convention, you have heard the motion which has just been made and seconded. All those in favor say "aye"; those opposed "no." The ayes have it and the committee will be announced tomorrow morning.

Gentlemen, if you will bear with me just a few

moments I would like to remind the convention that the resolutions committee has been appointed and all of you who have resolutions should send them in to the chairman of that committee, Dr. Ladd of North Dakota. An announcement was made in some of the evening papers that Mr. Bartlett was the chairman but that is a mistake. Dr. Ladd is the chairman.

Tomorrow afternoon at the close of our session for that day a photographer of this city would like to take a picture of the delegates and visitors to this convention and I presume that none of you in attendance will have any objection to appearing in this picture. It will be taken on the steps of this building and the photographer will be present at the conclusion of our afternoon session tomorrow with one of these revolving cameras. I hope you will all be on hand.

Excuse me. It seems there is a misunderstanding about the time. I was under the impression he told me tomorrow afternoon, but Mr. Meyers tells me it ought to be at noon. There will be a better light then.

Now the city authorities came to me this morning and stated that they would like to entertain the convention at some time that was convenient to us and give us a two hours' automobile ride around the city of Portland and the surrounding country and I told him I would find out whether that much time could be devoted to that purpose or not. The only thing against it is if we are going to get through our program tomorrow evening we have got to rush things through and I don't want to appear arbitrary but if it is up to me to get through tomorrow night, why *we will get through*. It is, however, within the province of this convention to decide whether we can give this time from four until six tomorrow afternoon to this automobile ride around the city. It is quite possible we will have to have a night session tomorrow night and for that reason I would not like to see any of the delegates make an appointment to do anything else for tomorrow night. Please remember that. Tomorrow night—and I have reference now to the program of the general convention. On Friday the convention will be the audience for the manufacturers and at the close of Friday night our entire proceedings will be completed. Is that satisfactory? If it is not, the Chair will stand corrected.

Com. James Foust: I would like to make a motion that we hold a night session this evening.

President Wallis: There is a theater party for to-night. The convention has already accepted the invitation and the tickets have been distributed and I would not like to see that arrangement set aside at this late date.

Com. James Foust: I move we hold a session of the convention tomorrow night then, from 8 to 10.

Motion seconded.

President Wallis: All in favor of a night session tomorrow night say "aye"; those opposed "no." The ayes have it and we will meet here tomorrow night in this room at 8 o'clock promptly.

Adjourned until 2 p. m., July 15th.

THURSDAY, JULY 16TH, 9:30 A. M.

Presiding. Hon. James H. Wallis, President.

The PRESIDENT: The convention will come to order. Before taking up our program for this morning I would like to remind those present that the photographer will be here in the front of the building at 12 o'clock to take a photograph of the members in

DELEGATES AND VISITORS AT THE EIGHTEENTH ANNUAL CONVENTION.



attendance at the convention. At 4 o'clock the city has placed at the disposal of the members of the Association forty automobiles to take us on a two-hour trip around the city. That includes the visitors and the ladies. They will leave from this building at 4 o'clock. I wish also that you would convene promptly at 2 o'clock because of the value of the short time left to us. We will have the manufacturers' papers this afternoon and tomorrow morning and we will have this morning and tomorrow afternoon to finish up the business of the Convention. I think this arrangement will be much more satisfactory all around. Then we are going to have a night session tonight. Now if there is no objection to that arrangement it will stand.

Dr. E. F. Ladd: With respect to resolutions, I wish the gentleman having them would get them into the hands of the resolutions committee at once so that we can get them into shape for presentation to the Convention.

President Wallis: The first paper this morning is "Enforcement of Sanitary Laws and Regulations With Model Law," by Dr. Oscar Dowling of Louisiana. This paper will be read by Mr. Taylor of Louisiana.

ENFORCEMENT OF SANITARY LAWS AND REGULATIONS WITH MODEL LAW.

DR. OSCAR DOWLING, OF LOUISIANA.

Twenty years ago the public knew in a general way that many foods were adulterated and that misbranding was common. In a day of get-rich-quick methods and sharp competition the average man accepted the situation as inevitable.

But with a growing interest in prevention of disease and promotion of health, the idea dawned that pure food is an important element in physical welfare. Concurrently with this came investigations of fraudulent practices, and the fight was on between the minority who would serve the public and the majority who were piling up fortunes through fraudulent food practices.

It is thought by one school of leaders that too much stress was laid on this aspect. They claim that adulteration and use of preservatives are not so deleterious as the other school would have us believe, but whether mistaken or not, these men who fearlessly exposed fraud centered the public mind, for a time at least, on pure food as distinguished from that which was no food at all.

It may be that ordinary adulterants are not poisons and that many substances used for illegal substitution are not particularly unwholesome, but it is a satisfaction to know that the public is protected. No consumer prefers to pay for plaster of paris as flour, imitation cream, redried tea leaves, or starch instead of cocoa. If he buys chicory for coffee it is a satisfaction to know that the label bears evidence of the fact.

The education of the public which resulted from the pure food agitation was worth the effort put forth, even though adulteration still obtains.

Only a few weeks ago Mr. Alfred Moore, Secretary of the British Pure Food and Health Society, held up the United States pure food laws as a model and upbraided the English for their apathy. He said the British public is defrauded of over \$300,000,000 annually through adulterated foods, yet they refuse to take an interest in protective laws.

While we may congratulate ourselves on commendable progress in this phase of protection, we have fallen far short in another aspect, more vital in physical welfare.

As we gather increasing knowledge of modes of transmission of disease, the grave danger from polluted foodstuffs becomes more and more apparent. Many of these facts are of recent discovery, but they are clear and point unmistakably to the necessity of cleanliness in the manufacture and handling of all food supplies.

If you will pardon personal experiences, when the campaign for pure food and higher health standards in Louisiana was inaugurated in the fall of 1910, I visited in the seven months' tour of the Health Train about 3,000 places of business which had to do more or less with the public health. Were I to recount conditions as found in hundreds of those places, you would think the facts exaggerated, but I assure you it would be impossible to speak too strongly.

In general, dairies, markets, slaughter houses and bakeries, not only in Louisiana, but in many other states, lack the essentials of equipment for cleanliness in handling of food.

A limited water supply and no sanitary conveniences are the rule, and lack of cleanliness of the person of employes is equally apparent. All are familiar with the supplies in grocery stores and fruit stands which are unprotected from flies and dust, and likewise with the grocer who handles dirty money one moment and easily contaminates food the next, throughout the day, without ever washing his hands. How can he do otherwise when provision for cleansing hands is lacking?



DR. OSCAR DOWLING, State Food Commissioner, Louisiana.

In Louisiana we have made a definite and persistent effort at reform in this particular branch of public hygiene. Food supply dealers, including many keepers of restaurants, have been made to show cause why they are not more careful of the public health. This demand of the Board of Health, with repeated inspections and prosecution in cases of flagrant violations after notification, has wrought a change. All places are not clean, but all dealers below the sanitary line have a wholesome dread of the sanitary inspectors sent out by the State Board.

In every instance effort is made to educate the individual; to make plain to him the reasons for using precaution and the financial gain which will follow adherence to sanitary regulations. One restaurant that I know of in New Orleans invites inspection of its kitchen at any time. It is the best possible advertisement.

The public receives attention in an educational way through the exhibits in the cars and the motion pictures shown every evening. The film "The Man Who Learned," which is the story of milk containing typhoid germs, carried the lesson home to one hundred and fifty thousand of our people. It

is a plain lesson easily grasped, and leaves a lasting impression. We have films on flies and many other subjects, but none better than the story of polluted milk.

Improvement in the sanitary features of retail handling of food must come largely through the education of the public. The people must be taught to demand that the food purveyor shall make safe, as far as lies in his power, the food which he offers for sale. It is a health right.

The regulations which pertain to ordinary handling and protection of food in stores, markets, etc., should be likewise enforced in manufacturing establishments. If anything, they should be more stringent, and it is to the credit of many manufacturers that already they have made provision for employes which ensures sanitation in surroundings and gives opportunity for proper personal cleanliness.

One especial feature of this phase is the health of employes. Many convincing experiments prove the theory of "carriers." Almost every one has read of "Typhoid Mary," who caused eight house epidemics before she was discovered to be a carrier of typhoid germs. It is known that well people are carriers of diphtheria and of other transmissible diseases; that in the nose and mouth of those who have been ill may lurk infectious germs of diphtheria, pneumonia, grippe; that the fingers of these people, contaminated with discharges from nose or throat, may carry the infection. Erysipelas, itch, and other specific diseases also may be transmitted.

In relation to food, no medical discovery of recent times is of greater importance. In addition to sanitary supervision of food products and establishments, it points out the need for medical inspection and supervision of employes. You would not buy bread from a baker afflicted with pulmonary consumption if you knew he was so afflicted, nor meat from a butcher with sores on his hands; yet these conditions obtain. That they should not be tolerated needs no argument.

I have taken the greater portion of the time allotted this paper to setting forth what may be termed the sanitary phase of the food question. It remains to make a suggestion as to a possible, practical remedy.

First, adequate rules and regulations. In Louisiana food regulation is under the control of the State Board of Health. The sanitary code is made up of enactments of the board, and these rules have been declared constitutional. Therefore we have no legal obstacles. We are hampered in not having our own attorney, and, in common with many sister states, in lack of sufficient funds to do necessary follow-up work. But the principle is, I believe, exactly what is needed for the perfection of a scheme which, if carried out, would result in the best possible form of protection.

For further progress, I believe adoption of a set of rules—laws, if you will—relating to this phase of food regulation by a number of states would be effective. A beginning could be made by the selection and enunciation of a few of the simplest yet most fundamental of the rules necessary. We are in need of uniform legislation in many lines of health activity. In fact, it is a crying need. As we are just in the beginning of a movement for the sanitary handling of food, both in manufacture and in sale, laws in various states identical in form and principle would be formative if not everywhere effective.

In conclusion, I wish I could add a few words concerning enforcement. A model law is of little value unless public sentiment demands that it be put into effect. Our statute books are the graveyards of many excellent and pertinent laws. They are records of the intelligence of legislators, the apathy of the public, or the negligence of officials. This only emphasizes the need for education in the principles of public hygiene and sanitation, and the results which follow laxity in these elements of civic welfare.

However, there are two schools also as to the wisdom of drastic enforcement of sanitary rules. Some of our most successful sanitarians believe that a concentration of forces should be made on the individual violator, even to the extent of a succession of personal visits; they think it unwise to prosecute. Others believe a single warning with printed instructions sufficient notice.

Our method is between these extremes. Theoretically, the education of each person is by far the best, but with a limited force and funds it is too slow. In addition, prosecution of those who wilfully refuse to obey the demands of the health officer is the best possible means of education of the entire community. We are careful to be just and fair and patient, but we believe now and then the axe should fall on the heads of those who are patent violators of the law.

I had hoped to be able to present at this meeting regulations

which might prove acceptable to a number of you, that we might make at least a tentative effort toward uniformity in legislation and in method of procedure; but owing to additional imperative office obligations, I have not had leisure to draft the regulations, and must forego the pleasure of presenting them.

To sum up, the United States food and drug act led the public to a distinct appreciation of the value of pure food legislation; the evolution of the science of preventive medicine reveals the value of wholesome, pure food, and clean food as an element of physical well being; and increased knowledge of causative agents of many infectious diseases indicates clearly the need of supervision of those who handle food. The problem is closely related to the health of every individual; it is one of legislation and enforcement, but more than all, of education.

Methods and means differ as the system of food supervision is different in the various states, but it is imperative that we realize the sanitation phase and lend our assistance to the development of higher standards, both of producer and consumer.

President Wallis: Mr. Barney of Iowa will now present his paper on the discussion of Dr. Dowling's paper.

Com. W. B. Barney: I think we all recognize Dr. Dowling as being an authority on this subject and I feel it would be presumption on my part to offer any criticisms on this paper.

There are one or two things I want to call the attention of the convention to, however, and the one I think the most important is the enforcement of a sanitary law. We have done a few things in Iowa in this line during the last year. The Department has been represented either by myself or one of my assistants in all the cities of 5,000 or more, where we held meetings of the merchants. We discussed at those meetings the things we thought it was needful to do. We have found that these meetings have been of great educational value. We have taken up the work of the sanitary measure, which is a new measure in our state, and the net weight law, of which we also have the enforcement. We have tried to point out to them, the foods and grocery people, that they were practically the only people in the state that were forced by law to cover their products and that they were practically the only people that left their products uncovered.

I recall, in going to a meeting of this kind in Iowa City, in walking down the street we passed twelve or fourteen stores occupied by different kinds of merchants. The fourteenth or fifteenth place was the first place we passed that was occupied by a food selling institution—I think it was a grocery or a restaurant. I pointed out this fact: That all of those stores up to that place had incased windows. They had good show cases for the protection of their products. When we got to this place everything was uncovered and they were the only people in the lot that by reason of an express statute were obliged to cover their products. That was something that seemed rather strange and I could not help but say to those merchants that they were certainly back numbers. I did not care to be personal, I said, and call attention to the grocery people of Iowa City particularly, but I did feel that the people of Iowa in the grocery and food selling business were back numbers so far as doing the thing it was up to them to do to protect their goods.

We have a provision in our sanitary law that I think is one of the most helpful things we have. I want to read it and I want to call especial attention to it because I don't know of any other sanitary law that has a provision of this kind in it, and it is one of the best helps we have in enforcing the law.

"No person, firm or corporation shall operate or conduct a bakery, candy factory, ice cream factory, canning factory, slaughter house, meat market or place where fresh meats are sold at retail without being licensed by the State Dairy and Food Commissioner. Each license shall be valid for one year from date of issue and shall be numbered and contain the name of the person and the location of the place for which the license is issued. No license shall be issued until a fee of \$3.00 has been paid to the State Dairy and Food Commissioner and application for such license shall be made on blanks to be provided by the State Dairy and Food Commissioner. The State Dairy and Food Commissioner may withhold a license from any applicant therefor whom he may deem unworthy, and he may revoke any license issued under this act. Fees collected under the provisions of this act shall be paid into the state treasury by the State Dairy and Food Commissioner."

Now I want to say that that is one of the strongest arms of our sanitary measure. It is a club we hold over a dirty bakery. When we withhold a license we have them. We have the bakery inspected and if he doesn't do things required by law and by the sanitary measure he doesn't get the license. If he does do the things we want him to do but gets a little negligent we revoke the license. It is the best thing we have ever gotten enacted into any of our measures. We don't try to make it a revenue measure, but the department receives \$55,000 from license fees of that kind and it is a good thing to go before a legislature with. We can say that we are paying part of the expenses of running the department and it is a pretty good leverage when we want an appropriation and it is a good thing when we want a dirty fellow to clean up.

President Wallis: Dr. Caspari asked me to let his paper go over until 11 o'clock, so we will call for Dr. Abbott's paper on "Uniformity of State Laws to Regulate the Production and Sale of Eggs with Model Law." Have you prepared that, Dr. Abbott?

Dr. J. S. Abbott: Mr. President, members of the Association, as you are all aware, I have just gone to the United States Department of Agriculture to take up the question of co-operative work and I felt like I could not discuss this egg question and the matter of a model law when legislation has been pending in Congress on it for a good while. As I am in an executive branch of the U. S. government and there is legislation in another branch of the Government I considered it would certainly be improper for me to discuss legislation and proposed legislation on this question. I don't mean legislation on eggs specifically, but there has been legislation pending on the cold storage problem. And of course the consideration of eggs is inseparable from the cold storage feature. The model law would have to include that, too.

I want to say with reference to the first part of my paper that I will make a few remarks about uniformity of laws, that is, not specific remarks but more general remarks about uniformity of laws.

I don't think that any of you ever hoped for uniform laws throughout the country. If we had uniform laws today we would not have them after our next legislatures had adjourned, so uniformity of laws appears to me to be a sort of a dream—but it is a good dream and it is a desirable dream to dream of uniformity of laws. There is one thing, though,

that we may have that will probably be better than uniform laws and that will be a uniformity of spirit and uniformity of action and uniformity of purpose among the food officials of this country. If we may develop uniformity of spirit, if every food official of this country may develop a uniformity of spirit with every other food official, in purpose and action then we will have something that is better than uniformity



DR. J. S. ABBOTT, Bureau of Chemistry, Department of Agriculture.

of laws. And it appears to me that that is one of the functions of this new office to which I have been assigned in the Bureau of Chemistry, it appears to me that this new office may encourage a uniformity of spirit among the food officials and if a uniformity of spirit does result from this effort of the Department of Agriculture to bring about co-operation among food officials it will have accomplished a great good, regardless of the special assistance that may be developed in one commissioner helping another commissioner or one Department helping another department in the enforcement of these laws.

In the past we have not had the team work that should have obtained among food officials. In the future, though, we hope that some good team work may be in active operation through this effort of the Department of Agriculture at co-operation.

I believe the time is just ripe for the beginning of this co-operative work. In the past we had other problems to face. We had to develop sentiment for pure food legislation and its enforcement. That sentiment has been developed most rapidly. We are amazed, we can hardly realize the good that has been accomplished in the past by food officials in that par-

particular direction in developing a desire for food and drug legislation. The present time in which we are living is the result of the good work that has been done in the past in those particular lines and, as I say, the time is ripe now, therefore, for the development of uniformity. We ought to get as much uniformity in the laws as it is possible for us to get and we want to look toward it as an ideal to be attained by hard work. We want the development of uniformity of spirit, of uniformity of action and cordiality among the food officials of this country. (Applause.)

President Wallis: Mr. Dinsmore of Nevada will follow on this subject.

Com. S. C. Dinsmore: I have only a few words to say. I had expected Mr. Barney to take up the discussion of this paper. I have had but very little opportunity of going into this matter and therefore I did not prepare a paper. I did receive a copy of the model cold storage law and in my mind the egg part, the production and handling of eggs, would be handled by that model law. I was in hopes that



MR. S. C. DINSMORE, Food Commissioner, Nevada.

something would be said here today on this model cold storage law. In our country at the present time in respect to the storage of eggs and the production of eggs, the only thing that gives us any concern is the Chinese eggs that are reaching the coast from time to time and occasionally we run across a few cases of such eggs. I understand that they are very carefully handled and repacked and in any of the chances we have found to examine them we have found them to be all right. As I said, we are keep-

ing a watch on them. I believe that is all I have to say on the subject.

President Wallis: Mr. Barney of Iowa. He came first to discuss this paper but he has just spoken on another subject and I thought perhaps it would be better to call on Mr. Dinsmore and then on Mr. Barney.

Com. W. B. Barney: I don't know that I have enough to say on this subject to come forward. I do want to say, however, that we have done quite a lot of work in Iowa on eggs this last season and we have a plan that has been working pretty satisfactorily and that is this: It is sort of an educational work. We have gone to the merchants in the various towns, being careful to go to those in the smaller places and we have asked them to sign an agreement to candle their eggs. I will read it. "We, the undersigned merchants of —, Iowa, hereby agree that all eggs purchased by us after (date) will agree to purchase eggs on the candling basis, rejecting all bad eggs." That is all there is to the agreement.

We occasionally go into a town and we will find five or six merchants or three or four and possibly all but one of them will sign the agreement. The last one will say, "I don't believe I will sign that. I will offend my farmers if I refuse to take their eggs."

Now we have no law obliging a man to candle his eggs and the merchant generally knows that and he will say, "You can't oblige me to candle eggs" on a candling basis and we say, "No, but we can make you a great more trouble than you can make us," and we do. We send an inspector after his goods and if they aren't right we prosecute him.

Now we don't stop with the merchants. We have easily prosecuted as many farmers in Iowa as we have merchants; and we find it very effective, too. You go into a certain section of the country and you pick up some eggs in that section, perhaps in the northwest corner of the state, and practically every country paper in that section of the state will mention that and the farmers become somewhat alarmed and he is a little more careful about the next lot of eggs he takes to town.

Then there is another way we get at them. There is nothing new about this, but we put out a circular that goes to all the merchants, our Bad Egg Warning we call it. Our state prints them without expense to the department and we have sent out two million of those circulars, sending them to the merchants and asking them to drop them into their delivery baskets as they go out in the wagons to the farmers.

Now I want to show you that we are getting some results. I will read a letter that I received from the deputy commissioner since my arrival here. The town he speaks of is in the southeastern corner of Iowa. I see Commissioner Fricke of Missouri is here and I want to say I do believe in team work and I hope he will join us in a strong effort to bring about co-operation, because this letter would not show that they have been quite as active down there as we have.

"I remember that this town of Clarinda is in the southwestern corner of Iowa where they get Missouri, Iowa and Nebraska eggs. Our inspector dropped in on the egg buyer there at ——— and

looked over his books and found what he had done in the way of candling eggs, with this result. In 175 cases of Missouri eggs 3,265 rots were discarded. Of 47 cases of Nebraska eggs 466 rots were discarded as unfit for food and in 181 cases of Iowa eggs 445 were discarded. This shows the Iowa eggs were 2.4 rots; Nebraska 9.9; and Missouri 18.6."

Now I believe that that is really the result of a little educational work done in that part of the country and when you find that less than 2½% of eggs are bad, the conditions are certainly getting to be fairly good and I think if we could get some team work on the part of the Commissioners in the various states we could bring about the same conditions in these other states.

I don't think I have anything else to say on this matter only that I would advise all the Commissioners to get enacted into their statutes a proviso that it is a violation of the statute to buy rotten eggs. It is where we have the trouble. Produce men don't want to take the trouble to candle eggs and buy carefully, but I think if we could get a provision in the statute to that effect we would reach that situation. Thank you very much for your attention, gentlemen.

President Wallis: Is Mr. Tolman present?

Dr. J. S. Abbott: Mr. President, before you go to the next paper, if you will excuse me, I would like to say a word here.

President Wallis: Certainly. Go ahead, Dr. Abbott.

Dr. J. S. Abbott: The figures Mr. Barney gave there were somewhat of a criticism, of course, on the interstate shipment of eggs from the state of Missouri. And, of course, I am glad he brought that out. If a man is active in his state in preventing the sale of bad eggs or anything else like that, the manufacturer is going to take pains not to try to sell those goods within the state, but he may try to ship them out of the state and it looks to me like that's what happened here. Sometimes they will take a chance on the federal government when they will not on the state man. So here these eggs were shipped out of Missouri and I think from what Commissioner Fricke has been doing in Missouri that they are pretty well scared there and they are afraid to try to sell them inside of Missouri and so they shipped them out, and that is the thing I would like to interest the states in, this co-operative work of ours. When we find conditions like that if we can get two or three Commissioners together with a view to co-operating in these particular lines then I can have someone, through the heads of the different parts of the Bureau of Chemistry, work in co-operation with the state men in these groups or districts. And if we can get together in that way, the chances are we can get action on some of these bad conditions that wouldn't be reached in a long time, maybe not at all, if we all kept on working independently of one another and I want to advise in this connection team work among the food officials so we can get some real co-operation. As long as the food officials are working independently, and especially as long as we are scrapping among ourselves with the manufacturers, saying, "Sick 'em, Tige; go to it," we won't get anywhere. They don't like anything better than that kind of thing and that's what we want to get away from.

Com. F. H. Fricke: Have you a cold storage law, Mr. Barney?

Com. W. B. Barney: Yes.

Com. F. H. Fricke: We have none in Missouri but

as Dr. Abbott has just stated, we have been very active in controlling the sale of eggs. About eight months ago we destroyed 8½ carloads of eggs that were stored in Kansas City. While I did not have the backing of the law, still I bluffed my way into the plant. And we got the evidence we wanted. Since June we have condemned and put into the river six carloads of eggs. Now heretofore it has been satisfactory to the state of Missouri where eggs have been unfit for food, to send them outside of the state, while I don't myself quite agree with that method. When we can get hold of eggs like that we dump them. But they know that we are so active in that direction that when they have a suspicion that they are bad they are taking a chance and sending them to other states. Dr. Abbott knows very well of a case where three carloads of eggs we wouldn't permit to be sold in the state but which I have permitted to be sold outside of Missouri for mechanical purposes. We doubted whether they would actually be used for those purposes and so we informed the federal authorities, gave them the car number and over what road they were going, and they were followed down to Texas, and that is where the federal authorities got hold of them.

Dr. J. S. Abbott: I am glad Mr. Fricke mentioned that. Somebody did run two or three carloads of those eggs into Texas and because Mr. Fricke was good enough to notify us we got hold of them. And I am glad Mr. Barney made the criticism that he did of this interstate business, because that puts it up to the Department of Agriculture. When a state man is active in running rotten stuff out of his state then it becomes a problem for the federal government and we are the ones to bear the brunt of the criticism for permitting that sort of thing to obtain.

Now then, this new organization in the Department of Agriculture is formed to develop some ways and means of preventing just that sort of thing and I am sure that Mr. Barney and Mr. Fricke and all the rest of you are going to do all that you can to help me work out this plan of co-operation so that one state man cannot be imposed upon by the bad stuff that another man is running out of his state.

I was in Mr. Barney's state not long ago, too, and I found out that he is making a campaign on rotten eggs and is meeting with success but unless we have some co-operation he will be imposed on with just such a proposition as that letter indicates, so that you see the need of this team work, this co-operation and as the need of it becomes impressed upon our minds more from day to day, I am sure all the state officials and the city officials will get together and I haven't the slightest misgivings but what we will get the most hearty co-operation from all these agencies in the future.

I know there are some people who shake their heads a little about this problem, but I suppose that is natural. And I suppose we are going to fail to get the active help that we want in some corners—I never did accomplish all I wanted to, and I don't suppose I will accomplish all I want to anywhere or that any of us will, but I am very glad this question came up as it has illustrated the great necessity for this sort of work.

Com. Jas. W. Helme: Our egg troubles in Michigan, it seems to me, is a result of a lack of something in the federal regulations. We are bothered with a lot of frozen, rotten eggs shipped in from Chicago and that is in the federal jurisdiction. They are labeled

all right, to be sure—they are labeled “To be used for manufacturing purposes only” but it seems to me there is something wrong with the federal government when they see a big Chicago concern making a shipment labeled like that to a big bakery in Detroit. There is a hole there that ought to be stopped up. That oughtn’t to be allowed. They know they are shipping that stuff to a manufacturing establishment that uses them in manufacturing—what? Food, of course. It seems to me the federal regulations ought to prevent that.

Com. F. H. Fricke: Missouri handles that in this way. Is the Commissioner of New Jersey here?

No.

Com. F. H. Fricke: We frequently get requests from egg shippers to permit a shipment of eggs to another state. I give them the permission under condition that they tell me to whom those eggs are going and for what purpose. I immediately notify the Commissioner of that state that so many car loads of those eggs are leaving St. Louis on such a date over such and such a line and ask him to watch those eggs, that they have been condemned for use as food in Missouri. That is how we handle it.

Hon. Geo. L. Flanders: Shouldn’t those eggs be marked “For mechanical purposes”? Isn’t the brand “For manufacturing purposes” including permission to use the goods to manufacture bread? Does it carry with it the idea that they may be used for food purposes?

Com. F. H. Fricke: We mark them “Not for food.”

Dr. J. S. Abbott: I hope the convention will pardon me for being on the floor here so often and I may say in that connection that I have heard it said that the reason I was put in the Department of Agriculture was to keep me from talking so much in this organization. But in answer to Mr. Helm’s remarks, in the next Service Regulatory Announcement (which comes out monthly from the Bureau of Chemistry, I have just been informed by Mr. Dunbar who has charge of that) will have a regulation to the effect that eggs shipped for industrial purposes cannot be shipped in interstate commerce unless they are first denatured. That will relieve the situation.

Com. James Foust: I desire to say that Pennsylvania has an egg law which prohibits the sale of eggs unfit for food for any purpose whatever unless they are denatured. We have a very mild penalty for the violation of that—just a fine of from \$200 to \$1,000 or from 3 to 9 months in jail, either or both in the discretion of the court. (Laughter).

Our law makes it an offense for such eggs to be delivered to a place where food products are prepared or manufactured—both for the one delivering the eggs and for the one who receives them. We get them going and coming. Under the plain language of our law eggs unfit for food cannot be sold for manufacturing purposes unless they are first denatured.

Dr. S. J. Crumbine: I regret that I did not hear the discussion on this egg problem because it is a very important problem. The questions which interests me perhaps more than any other in this connection is how to determine what is a good or a bad egg. I would like some Commissioner or expert to indicate to me when an egg is unfit for food. I don’t believe that question has been determined yet in a way that is satisfactory to the Commissioners. At least I have not yet found a definition for a good egg.

Mr. R. M. Allen of Ky.: Mr. President, I would suggest to Dr. Crumbine that it is not so much a matter of fitness or unfitness for food as it would be of grades. That question of fitness for food has a very wide zone probably that has not been closed in, but last winter in Kentucky we graded some eggs and we found that our gradings compared very closely with theirs. In one particular instance I remember we graded some eggs as seconds. It was a case of eggs put out by a very large firm in one of the large cities in Kentucky and I happened to be in the city to which those eggs were shipped and I was interested to find out that the case of eggs taken out of the refrigerator car by the inspector, their grading agreed with ours. I found that they had also graded these particular eggs as seconds. They had been packed as seconds and had been inspected by our inspector as seconds and graded at their destination as seconds. And I think that shows that it is possible with proper candling to reach uniform grades.

Why proceed on the basis “Is it a rotten egg, is it fit to eat?” as Dr. Crumbine probably would do, but why not let us grade these eggs as firsts, seconds or whatever they may be.

When I left Chicago, the one problem to me was not so much the rots or inferior eggs that were going to some of the packers in Kentucky, but to have them labeled “Seconds.” That concern has a standard of grades that they send to their employes and to their packers and they are having their eggs graded according to those standards and the Department of Agriculture has a standard for grading eggs, my inspector has a system of grading and if they all arrived at the same grade, why isn’t that enough?

Let us not take up our time during the next several years trying to decide whether they are wholesome or not but let us see that they are labeled to show their true grade and I believe that will prove the most practical method of proceeding with the problem at the present time.

Dr. S. J. Crumbine: Mr. President, replying to Dr. Allen’s remarks, in my judgment that is a nearer way to solve that than any other and yet that does not reach the solution of the question. It comes nearer than any other. Dr. Mary Pennington, who is probably the highest official authority on that particular subject in this country, has indicated in eggs candled out or designated as spot eggs and under the candle would be determined rejects, unfit for food for human consumption, when broken have run as high as 20% of eggs that were fit for human consumption. In other words, the candling test is not infallible, although I do think it is a step in the right direction, and so is the grading proposition.

But how are we going to decide which eggs are unfit for food and denature those? The supply of foods is a serious question in this country at the present time and it is going to continue to become more serious as the days go by and I believe a Food Commissioner should hesitate before he destroyed a lot of food in that way—he should be pretty sure, he should go slow until that question is settled very, definitely and unanimously.

I believe Commissioners had better put their energies towards the production of eggs and “Swat the rooster” and all down the line, rather than “Swat the eggs” themselves. But Mr. Allen’s suggestion is the proper one at this time, it seems to me.

Mr. R. M. Allen of Ky.: Mr. President; if I may

add just a word on that point. I believe that the grading and labeling of eggs will be the most effective and immediate means of getting this reform back through the lines of trade. When the large commission man finds he has to label the goods with the grade when he ships them out to his customer, he is going to buy eggs the majority of which will go into the first grade and if we put that lever to work, I believe, with the additional methods Dr. Crumbine suggests, it will soon sweep the reform we seek along through the ranks of them all. I heartily agree with Dr. Crumbine that there has been too much neglect of food conservation in this country. Every time I see a Health Department destroying 4 carloads, say, of food, it gives me the creeps because so much food has been taken out of our food supply and it is up to us to get together and get some influences to bear so that in a few years we will not have to destroy any eggs—and I believe this will do it.

I have wondered where to start. I have wondered whether to start with the farmer or the packer or at both ends at once, but certainly if the retailer has the grade of the eggs he is selling marked on the basket he sells from he will make it a point to try to get better eggs to sell.

Dr. Wm. Frear: I want to ask this question of Mr. Allen. I can see how it is practicable to mark the case and to require a resorting of eggs as to grades, determined in some approximate manner, which is all we can have, because the methods of grading are open to uncertainty. The question in my mind is this: How can you bring that method into play in some practical manner so as to protect the consumer? If you mark the case how can you identify the eggs? How can you be sure that such deterioration has not progressed during transit, that the egg is not properly a reject by the time it reaches the consumer? It is an important, practical question and I am very much interested to know what methods, if any, have been devised by you to protect the consumer.

Hon. Geo. L. Flanders: Mr. President, the thought occurs to me in listening to this discussion that the proper place to begin with is the point of production. I think you will have to commence your control immediately after the eggs comes into sight. You have your educational work in the states, you have your institute work, as we do, and I think most of you have that—wouldn't it be a good place to begin there to induce the farmers to take good care of their eggs, to gather them early and put them early on the market? If I remember, the Bureau of Chemistry issued a bulletin by Dr. Pennington in which the statement was made that an egg going into cold storage could not be kept better than when it was put in. That a large part of the problem was to get the egg into storage in a good condition. And it seems to me the place to begin is at the beginning, when the egg leaves the hen. It ought to be forwarded just as soon as possible to the consumer. It is a difficult question for the executive officer who seeks to destroy a food product of this kind when the evidence is at least questionable as to whether or not the article is fit for food.

In our state today we have a case before the Supreme Court in which an official is being sued for several thousand dollars for destroying a number of thousand pounds of meat. Both sides have a good deal of evidence and experts are going into court swearing both ways as to whether or not that food was fit for consumption.

An officer destroying a carload of eggs may be justified and he may be right, but where is the evidence to sustain him? We ought to have something to fit that situation. Isn't the remedy to start with the egg at the time it first sees daylight, to urge it forward to the consumer and have it cared for. It is a matter of education, it seems to me.

Com. G. G. Frary: I think if you will read our Bulletins you will see that educational work has been carried on very extensively in the western states and that we are getting results. We have inspected the grading done in the packing houses and we found in one instance that in what they graded as "seconds" they were putting in rots. And if they are selling rots for food I think the matter is a very important one. Just what goes in each grade ought to be very carefully watched.

Hon. Geo. L. Flanders: The bulletin the gentlemen speaks of and other bulletins of the same kind are published. We all know that, and some of us have seen them, but the question is do those publications get to the men who actually produce the goods and who has to take care of them for the first few days? Can't the states take the matter up in their institute work better than is now being done? I know that many valuable bulletins are printed and they are sent to some places and sometimes they are read and sometimes they are not. But in your institute work would it not be well to have lectures to bring that subject home in force so that the farmers will realize its importance?

Mr. John Newman: In our state when bulletins are issued, the very first persons to whom they are addressed are the farmers, the general storekeepers and then the commissionmen. And when you start off your bulletins to the produce men and pay him for only what is good, you begin to impress the farmer with the fact that he should take better care of his eggs. And then you get all the egg men with you. We have one lot of a hundred thousand now that are being sent out to the agricultural dealers, and our state papers, nine hundred state papers are publishing that bulletin and will republish it again a month later. We find there is a great demand for knowledge of this kind by the people and by the country merchants everywhere, they send them to the farmers.

Com. W. B. Barney: This Bulletin No. 9 we sent to every merchant in the state of Iowa. Both our Bad Egg Warnings and this bulletin are sent to the farmers all over the state. Now of these bad egg warnings—we have sent out more than two million of them. They go to the farmers, so that they get them directly. There is quite a little information that is valuable to the farmer in this little leaflet.

Com. G. G. Frary: The leaflets we send out we have the merchants put them in the grocery baskets and the egg baskets when they are returned to the farmer and then we have a placard which we give them to put up in every store where eggs are bought and sold and the merchant just refers the farmer to that placard and in addition to that we did take it up in institutes last winter and we are also getting from the Bureau of Animal Industry an excellent bulletin on the fertile and unfertile egg. We are putting that out to the farmers and we find that the farmers are very much interested in this educational work.

President Wallis: We will take up the next paper. It is called "Inspection of Water Supplies" and is by Dr. Charles D. Howard of New Hampshire.

INSPECTION OF WATER SUPPLIES.

BY CHAS. D. HOWARD.

Chemist, State Board of Health, Concord, N. H.

So far as can be recalled, the subject of water-supply has never been specifically discussed at any of the various meetings of this association. And yet, broadly speaking, water is entitled to be classified as food. Certainly, no other article of diet enters so completely into the construction and support of the animal system.

The legal status of water as a food is recognized in the definitions of "food" as contained in the various state and national laws. Under such laws we can, for example, prosecute the hotel proprietor who serves a polluted table water to his guests.

It has been said that the consuming public is much more particular today as to the character of water it drinks than it was two or three decades ago. True it certainly is that recent popular agitation in favor of "pure food" has had



MR. C. D. HOWARD, Chemist, New Hampshire.

its counterpart in an increasing interest in the subject of pure water. As it comes to be more extensively realized that typhoid fever and kindred maladies incident to a polluted supply are totally unnecessary, the demand for the abatement of such conditions correspondingly grows. And the public is no longer satisfied to accept a water which is merely safe; it insists upon a supply which is clean and attractive as well—one which is free from noticeable color and turbidity.

In a recent suit involving condemnation proceedings against one of our most highly colored New Hampshire supplies, the expert for the defense, in attempting to refute the testimony in derogation of the quality of this supply, declared that the latter was "perfectly sanitary and hygienic." And the defendant's counsel, a man of large reputation, in his argument before the jury insisted that the high color of this water should not be deemed as having any bearing upon its fitness for drinking—that inasmuch as color was, *per se*, admittedly nondeleterious, this feature was absolutely beyond the pale of the state board of health to consider. The jury, however, declined to view the mat-

ter in this light, having looked upon the water in question and having apparently concluded individually that they did not care to drink it, rendered a verdict accordingly.

Unlike food inspection, the control of public water supplies is uniformly vested in state boards of health, yet many of the dairy departments and experiment stations are called upon to do not a little work of this character, so that an interest in the subject from an administrative standpoint is not altogether limited to health boards.

In many states the operations of food and water inspection are entirely distinct, and are carried out by unrelated departments. This condition is typified by the law here in Maine, where food and water inspections are in charge, respectively, of the Commissioner of Agriculture and the State Board of Health.

In other instances, as in Massachusetts for example, these lines of inspection, while under the same auspices—that of the state board of health—are carried out in entirely separate divisions and in separate laboratories, there being no working interrelation between the two staffs.

In still other cases, both food and water supply inspections are under the immediate control of one department and the examinations are all carried out in the same laboratory by the same staff of workers. Such is the condition in Vermont and New Hampshire. Although food and water inspections are closely related subjects and should, logically, be under the same departmental direction, yet because of the extensive field and the specialization so desirable in each case, the best way, obviously, for any of the larger and more populous states is the plan which involves a separate staff of experts for each division of the work.

In New Hampshire there are in the neighborhood of 125 public supplies. Most of our systems are relatively small, there being but three with a daily consumption exceeding one million gallons. Some of these supplies we examine but two or three times a year—a few of the smaller ones perhaps even less often—others may be sampled once a month, while in special cases, where a system of purification is in operation, the examinations are made frequently.

Although in the case of a supply subjected to treatment of some kind, weekly or even daily analyses are often very desirable, yet examinations of this frequency on the part of a state department are impracticable—at least for more than a very limited period. In such cases the water department must either have its own chemist, or get on as best it may with the aid of occasional advice from the state. Thus it is our practice to occasionally check up the operation of filters and of sterilization treatments, and in the event of any serious difficulty, we devote considerable special attention to that supply for the time being.

For purposes of complete analysis, gallon bottles provided with special cases are employed, and for collection we ordinarily depend upon the local health officer or the water superintendent in place of dispatching a special inspector, as is the practice in some states. Examinations for colon bacilli are limited to the presumptive test in routine work, both 1 cc. and 10 cc. quantities being employed.

As is generally known, a so-called complete water analysis involves the securing of data upon some fifteen or states, it has always been our custom, in pursuance of the control scheme originally instituted by the Massachusetts State Board of Health, to make these complete analyses in the case of all our public supply samples. This necessitates a great deal of time and labor, and considering the apparent lack of value in the repeated determination of some of these items, it would seem that the routine analysis might in many cases be abridged with profit. Unquestionably, such an analysis is valuable in the case of ground waters and for the investigation of unknown sources; yet of what practical use is the constantly reiterated determination of such classic details as total and fixed solids, hardness, nitrates and nitrites, and even of free and albuminoid ammonia, in connection with the average pond or lake supply? It would seem not improbable that in the case of the average source of this character there would be a distinct advantage in dropping most of the chemical analysis and substituting therefor a biological examination. This, with the colon test and a periodic watershed inspection, should supply about all that is necessary. In my estimation the watershed inspection is fully as important as the laboratory examination—frequently more so. Undoubtedly the two should go together.

Since the institution of the New Hampshire laboratory, the policy has been followed of making free examinations of private wells and springs upon application of the owner or other party interested. Obviously the privilege thus

accorded the public adds greatly to what may be regarded as the more legitimate work of the department, and in most other states it has been found necessary either to discontinue such service altogether, or greatly to restrict it. Thus in Massachusetts, sources of public character only are examined to come within the category of "public," it being required that the source in question constitute a supply for at least four families.

To go to the opposite extreme, there are other states where a suspicion on the part of the owner that a given spring may have medicinal properties, or may contain a modicum of the popular element, lithium, is accepted as excuse for a lengthy mineralogical analysis.

Fashions change in the mineral water business, as in other affairs, however. Recently we had submitted to us a sample of ginger ale alleged to possess peculiar tonic properties by virtue of having been prepared from a radio-active spring water.

In New Hampshire it is the practice not only to limit the private supply examination to a sanitary analysis, but the filling out of an application form is required, and a satisfactory reason for requesting this service must be given. We have always found the performance of such work good policy; and, on the whole, one which has undoubtedly been productive of much benefit. This service has been particularly appreciated by the thousands of summer visitors to New Hampshire.

An examination of the water supply in use by the dairy is one of the requisites for the granting of the special license as issued by the state board of health for the sale of what is known in our state as "inspected milk"—that is, of a grade of milk which embodies most of the practical essentials of the expensive certified variety.

A very large share of the benefit believed to have accrued from private water supply inspection has been in the direction of eradicating the use of lead pipe. In the past the large proportion of the private supplies were thus conveyed, and lead-poisoning, as manifested in various forms and degrees, was exceedingly common, although at the outset this ailment was not very readily recognized by physicians.

As a result of this feature of the work, hundreds of lead pipe systems have been condemned and discarded. It has been clinically proved to our satisfaction that the regular use over long periods of time of waters containing no more than small traces of lead, even, will frequently be productive of serious health impairment. Fortunately, lead-poisoning from drinking water is a difficulty for the most part confined to the East; in the newer sections of the country the practice of conveying water through lead is apparently not very common.

A number of states now have legal provisions requiring that before the installation of any public supply system, full plans therefor shall be submitted to the state board of health; and in addition to making the usual chemical and bacteriological examinations, the board also makes a sanitary survey before granting its approval. This I regard as an exceedingly valuable provision in the interests of the public welfare. It is surprising how little attention some towns and cities, and particularly some of the water companies, are inclined to give to the important item of quality. This is perhaps more apt to be true of the selection of auxiliary sources intended for "tiding over" during a dry season, the impression seemingly being not uncommon with a certain hard-headed class of water commissioners and superintendents that almost any water is good enough for piecing out the regular supply.

An interesting feature of the work of my department has been the inspection of the water supplies in use by the summer hotels and by the numerous smaller boarding houses catering to the summer visitor. Notwithstanding that New Hampshire is the home of good water, these inspections have served to unearth a number of villainously bad sources. In such cases the proprietors have uniformly taken prompt action when notified of their liability to prosecution under the food law for serving polluted water to their patrons.

Another application of this form of inspection is the examination of water and ice used for filling the drinking tanks on trains. A recent order of the United States Surgeon-General makes it incumbent upon all common carriers to have periodical examinations of the water and ice as supplied to all inter-state trains. So far as I have been able to learn, these examinations are now being very generally carried out by the various state health laboratories; at least, this is true of all the New England states. This far we have been compelled to refuse certification in but two in-

stances: One, that of a very pure spring water highly polluted by dissolved lead; the other, that of a dirty ice.

So far as the matter of ice is concerned, it may be stated that there is far more need of inspecting the hands of the brakeman who fills the tank than the ice itself. However, this is a contingency for which the federal order in question makes no provision.

In conclusion I may refer to the recent wonderful advancement in the application of the hypochlorite treatment to the purification of water supplies. In common with other state boards of health, we have found the practice of constantly keeping on hand an emergency hypochlorite outfit a most valuable one. In water and sewage treatment it has lately been demonstrated that liquefied chlorine, such as comes in steel cylinders, possesses some advantages over bleaching powder, and I, personally, have no doubt that ultimately such chlorine will replace the bleaching powder for this purpose.

A recent rather novel application of chlorine to one of our supplies is for the purpose, not of sterilization, but of assisting in the flocculation of a colloidal turbidity which had hitherto rendered satisfactory filtration exceedingly difficult.

President Wallis: I, for one, want to express my appreciation of Dr. Howard's paper. But the confusion in the room was such that I am confident that much of it was lost to some of the Commissioners at least. The discussion is to be opened by Dr. Street of Connecticut. Not here? Well, we will call on Dr. Rose of Florida.

Dr. R. E. Rose: I have made no particular preparation in order to discuss this paper, this very able paper, and would only say that, like many other states, the examination of water is in the control of our State Board of Health. They have entire charge of the sanitation and cleanliness of the state, everything including the water. We have frequently made chemical analyses of water at the request of the Board of Health. But we have no bacteriological laboratory in the state chemical department. With the exception of gross carelessness in allowing contamination from the surface, the state of Florida is free from contaminated water.

Nearly all of our waters are supplied by artesian wells, and the water is taken from four to six hundred feet below the surface and while it is contaminated with lime and salt occasionally, we find those are the only two impurities in the water supply as a rule. Of course we have some lakes which are occasionally contaminated with vegetable matter and algae. As far as the city water supplies are concerned, in every case the State Board of Health freely examines the water in the reservoir. The water going into the reservoir is always pure water but there is no doubt but that it is sometimes contaminated by dust, as it is exposed to the atmosphere and there is some contamination by bacteria. My experience in the examination of water has been rather limited, although we have made quite a number of chemical analyses. But those are more for the interest of manufacturers who want to know how to avoid a hard water than for the purposes of health.

President Wallis: Any further discussion on this?

Dr. Geo. B. Taylor: Dr. Street is here.

Dr. J. P. Street: Oh, no, I'm not.

Dr. Geo. B. Taylor: May I ask a question? Dr. Howard, you stated that you analyze private water supplies at the request of any citizen. Doesn't that give you a lot of trouble?

Dr. C. D. Howard: No, our state is not so large but what we can comply with those requests if they are made in the proper manner. Ordinarily we have an application form which has to be filled out and we have required the endorsement of the family physician, because usually the request is made on account of some

suspicion that the water is not all right and possibly it has caused some sickness. Examinations of that kind make up about one-half of all the water analyses we make in the course of a year. We have a lot of work of that kind but we feel it is good policy. It is very much appreciated by the people of the state.

Mr. Geo. B. Taylor: If we analyzed a water at the request of any citizen, every person in the state who had a well which smelled bad or tasted bad would want us to give him a mineral analysis and a certificate that he could use to advertise its so-called medicinal qualities. We analyze public water supplies and private supplies which are suspected of causing disease. In the latter case the request for an analysis must come from the local health officer. We send our own container with instructions for the collection of water, together with a sanitary survey blank. We do not furnish reports unless the sanitary survey blank is properly filled out.

Dr. C. D. Howard: We require the use of a sterilized container and it must be accompanied by a file card, on one side of which is the name of the sender and the space on the other side of the card is used for the analytical data and put in our filing cases. We cut out examinations requested out of curiosity. We simply decline to make the analysis. There must be some good reason for it. But New Hampshire is not so largely populated but what we can concede to the demands that are made.

Dr. Chas. Caspari, Jr.: This question is not handled by my department in Maryland, and we have less difficulty in covering the ground than some of you gentlemen seem to. I am glad to say that this matter is not in my department but we have a special sanitary board, and their laboratories are well equipped and the chemical work is done in the state laboratory. The state of Maryland is divided into ten sanitary districts and in some of them they have a resident engineer to report regularly to the board. It has control over private and public water supplies and also the disposal of sewage. None can be disposed of without the approval of this sanitary board. The last legislature passed a bill with ample appropriation to support this board and the work is progressing very rapidly. In the home office there are six sanitary engineers besides draftsmen and experts and we keep two men busy on the chemical analyses. We do not only public water supply analyses but we also analyze private water supplies when requested, and we find that the work is very successful. We always use chlorinated lime as the agent to purify the water and with excellent results and the city of Baltimore has better water today than it ever had before.

Dr. S. J. Crumbine: I am wondering if every Commissioner realizes the great importance of having very definite information in his department as to the wholesomeness of the public water supplies in their state. It has a very definite and close relation with the food and drug work. Take, for illustration, the manufacture of soft drinks. It is essential for every Commissioner to know that the water used in the manufacture of soft drinks is pure and wholesome.

Several years ago the University of Kansas made some experiments as to the effect of carbon dioxide under pressure on water. A number of years ago it was thought that such action rendered the mixture sterile. The examinations we made revealed the fact that it did not do so and therefore we insist that the water used in the manufacture of these soft drinks shall be beyond suspicion.

That is equally important in meat packing establishments. Therefore we ought to have specific data concerning the wholesomeness of the state water supplies. We ought to secure that data or undertake the work of getting it together ourselves. In our own state it is a regular part of the routine of the office to examine the water supplies twice a year, to make a chemical and bacteriological examination as well. That goes hand in hand with the food and drug work.

The question of our milk supply is, unfortunately, also connected with the water supply. It is very important that the Food and Drug Commissioner should take an active interest in the water supply, public and private, of his state.

Mr. R. M. Allen of Ky.: I want to re-emphasize, as Dr. Crumbine has, the fact that the use of pure water in the manufacture and preparation of foods and drugs is one of the sanitary fundamentals that the Commissioners should undertake.

Last summer in Kentucky among the large numbers of water samples brought in, Dr. Prennell examined 268 for typhoid. The workers here know what amount of work that means. In 15 instances out of that 268 he positively detected typhoid infection. If you will stop to think that that represents 15 sources of water supply in Kentucky that were infected with typhoid germs, you will realize that that presents a very grave problem.

In the experiments I have seen in connection with carbonated drinks, the data don't altogether agree with the examinations made in Kansas. I have not seen the data to which Dr. Crumbine makes reference and I would like very much to get hold of it.

We undertook a very wide survey of pop bottling establishments in the state of Kentucky. We sent out a man who knew how to take a sample for bacteriological examination. The collection of the sample is as much a part of the bacteriological technique as the laboratory examination itself. They take a sample of the water used in that pop factory, a sample of the bottle before it has been washed, a bottle after the process of washing, a sample of the water and a sample of the finished pop. The charts on that work are now ready for publication and I am satisfied that the carbon dioxide, or some action attending it, does act as a disinfectant for these drinks. In fact, I believe we would have had widespread evidences of sicknesses if it were not for the fact that carbon dioxide and acid flavors are used in the manufacture of the pop.

But our laboratory in Kentucky is thrown open, provided there is a reason for it, for the examination of samples of water that are sent in there. As I say, so far as the bacteriological count in water is concerned, it doesn't mean as much as more complete examinations. But we are not finding that we have such a demand for this sort of work but what we can take care of it and I don't know of any line of work that is more popular, that the people seem to appreciate more, or that is more fundamentally important.

Dr. H. E. Barnard: I think the Commissioners are interested to know why the use of water for drinking purposes in Kentucky has been so long frowned upon and why it is necessary to disinfect the water supplies before they become useful as a beverage.

So far as I know, there are only two or three other instances on record where the typhoid germ in a water supply has been isolated. We will have to be

careful of what we drink when we visit that state.

I agree with those who have spoken who have said that a study of the water supply of a state is the most important problem before Commissioners and their chemists. Some of us have been neglecting to look upon the water supply as a food supply. But it is a fact that every state law classes water as a food. Certainly no sanitary inspection is complete until we have determined whether or not the water supply at the canning factory, bottling plant, and slaughter house is pure. And one of the first things that our inspectors do in making these inspections is to send in a sample of the water for analysis.

In Indiana we have thrown the laboratory open wide to the people of the state ever since it was organized, and it has been our practice to analyze samples of water sent in by the citizens of the state, requiring only that they be submitted in our own sterilized container. We wish our people to know our water is pure and, singularly enough, we have never been overwhelmed with requests of this kind. Every year we analyze about 1,500 samples, and the percentage polluted is practically the same every year. The average character of the surface water supply throughout the state of Indiana during the past nine years has been 58% polluted. In other words, out of every 100 wells in our state we find 58 of them unfit for consumption. We feel that kind of work is a little better and benefits the people of the state more than to look after sawdust in the spices and things of that kind because when we look after the water supply of the state we are going to the very foundation of the protection of the health of our people.

At the present time we are working along another line in the public health service and we are studying the character of the water served in the interurban cars. We cannot push this question of the control of the water supplies too far or do it too thoroughly, and I think we should hold, and our chemists working at it in the laboratory should feel, that when we are engaged in that work we are as much engaged in food work as if we were working on milk or butter.

Hon. Geo. L. Flanders: What do you do with that 58% that is polluted?

Dr. H. E. Barnard: The health officer is instructed to close the well.

Com. W. B. Barney: What, if any, charge, is for analyzing water for a town or city?

Dr. H. E. Barnard: No charge at all is made for municipal supplies. No charge is made whether it is owned by the municipality or is privately owned. It is examined four times a year. Further than that, wherever the city has a filter in operation we have assisted the company in the establishment of their own laboratory. At the present time I think every filtration plant is operated by a man who is sufficiently trained in chemical and bacteriological work so that he himself is able every day to check up the quality of the water and then in addition to that, once a year our chemist visits the laboratory to see that everything is going on properly.

Dr. L. F. Kehler: One point in Dr. Howard's paper which is pertinent, I think, and that is the contamination which results by handling, even though the product originally was of a very pure character. He referred to the ice being contaminated by the employes handling it. Those of us who have traveled on trains at all and have watched the water as it is handled on the cars can certainly sustain that statement.

I also want to make a few remarks upon some other lines which I believe have not been fully enough discussed. I was in an ice factory once where every possible precaution was used, apparently, to make pure ice. The employes were instructed to be very careful. But after the ice was made they ran it down a chute. They were making the ice all right but I saw the employes spitting down that chute.

Now going into a meat market, you ask to see some meat and in a great many of them you will find the meat hanging around unprotected. And frequently the employe is smoking or chewing tobacco and he will take out his cigar and lay it down and get saliva on his fingers and then he will handle that meat and spit down on the sawdust or at a spittoon that might be sitting by. Now that sort of thing ought not to be allowed in a place where food products are handled. I have seen that sometimes employes will go into a back room and change their stockings and shoes. I have noticed that done very often in parlor cars and then those same employes will come in and serve your meals without ever having washed their hands.

Take the matter of the delivery of milk. You all know how unclean the employes generally are, even though the milk itself might have been clean and pure in the beginning when they started out with it. But there is that carelessness in handling that is dangerous. I don't know how it can be obviated, but I think the consumer should be very careful to clean the bottles before they are opened up and the milk poured out and used.

Mr. R. M. Allen: I want to make a statement about those 268 samples that we examined for typhoid. Although I know to a large number of workers the examination of that number of samples for typhoid and the isolation of that many germs seems a large job for the bacteriologist, yet if the most perfected methods are taken up in the laboratory, some very excellent positive work can be done.

We started in with a dairy. In Lexington there were six deaths, or I think it was eight or nine, from typhoid fever within a short time, and they were all on this particular dairyman's route. We inspected the dairy, selected samples of water from the cistern and took samples of the milk, and Dr. Healy, bacteriologist of the food and drug department, positively isolated typhoid germs from the sample of water that we took from that cistern. He put them into culture and kept them there for a considerable length of time, so that there could be no question but what he had identified it. We were interested in finding out why the man's cistern had become infected, and so we investigated that. The cistern was near a vault and there was a leak in the cistern, and the probability was that the infection had come from that vault into the leaky cistern. And it had gotten into the milk because, after sterilizing, he had poured the cold water into the bucket to rinse.

In the work that Dr. Pinnell did he has now a lot of cultures taken out of water that will speak for themselves.

Dr. L. F. Kehler: If all these contaminated wells were closed up, how does Dr. Barnard explain that the percentage is always 58% of pollution every year?

Dr. H. E. Barnard: There are about two million wells in Indiana. We analyze 1,500 every year.

Dr. C. D. Howard: I think it necessary to emphasize that the isolation of the typhoid germ is a very

difficult matter indeed and the average bacteriologist limits his work to the isolation of the colon bacillus. One value we find in using application forms is that a great many people seem to have the habit of wanting to have their wells examined every year, and so where we find that an analysis has been made previously we look the matter up, and frequently it shows that the water is running all right, and such cases we discourage. That does something to reduce the multiplicity of cases.

In regard to the influence of carbonic acid gas on bacteria, I believe it is true that an ordinary amount—such as is normally present in water—rather favors the growth of bacteria than otherwise, but a large amount may tend to kill off a number.

Dr. S. J. Crumbine: Mr. President, I wanted to make an amendment to the same statement that has already been made here, because I consider it important. I have already looked into Mr. Allen's experiments on carbonated water, but I wonder if he has read some more recent determinations in which it is shown very clearly that the addition of carbon dioxide to polluted water acts as a stimulant to their growth and that carbon-dioxide-free-water was a detriment to their growth. I think Mr. Allen will find, just as we found, that after a water was bottled for a time there is a decrease in the growth of the bacteria, not due to the carbon dioxide, but rather to the natural effect of storing the water. We know that even by the addition of the culture of typhoid bacteria in open stored water, within 24 hours that water will be sterile. It is simply the effect of the sunlight and air.

Mr. R. M. Allen: All of these questions are subject to further study and investigations. I speak from a very complete survey of all the bottling works in Kentucky and the water used. We also conducted some experiments on milk of high counts and found that charging the water greatly reduced the count. It may be due to the pressure or the bottling it up or what-not, but the two columns set side by side showed such a uniformity of decrease in the number of bacteria that we were forced to conclude that the carbon dioxide had something to do with it. Those results will be published in the fall and we are going to follow the work further.

President Wallis: We will go back to the paper by Dr. Charles Caspari, Jr., of Maryland, on the subject of "Uniformity of State Laws and Federal Regulation Regarding Habit-Forming Drugs, with Model Law."

Dr. Caspari, Jr.: Mr. President and Delegates to the Convention: I am not going to detain you very long. I am going to be very brief in my remarks, which will be in the nature of a report, and I should make an apology for not having prepared a paper. I did not know until the last week in May that I had been selected to take this matter up and I so notified our president, and I want to express here my appreciation to the gentlemen who have supplied me with information, but the subject is so voluminous and so diversified it was impossible to make a complete paper regarding the matter.

I feel that the matter of making a model law upon this subject should devolve upon a committee, one member of which should be a legal man.

In the majority of states the Food Commissioners have no control whatever over the sale of habit-forming drugs. It is either lodged in the Board of

Pharmacy or specifically in the Board of Health. I also find that the U. S. federal government has just now a law providing for the proper control of the manufacture and sale of cocaine. But in the states there is an immense diversity in the number of laws affecting the sale and manufacture of habit-forming drugs and in the allotment of the enforcement of the law. Take my own state: I could not touch it at all. The enforcement of the anti-narcotic law is lodged in the Board of Pharmacy, which by special statute has control of this matter, and it doesn't seem to be a subject with which the food officials should be concerned, except in a general way. That it is a special subject that ought to be delegated to special boards or committees for enforcement is the general feeling in many states.

Whether the federal government will be able to control the matter of interstate shipments of these habit-forming drugs or not, I am unable to say. In some of the states, as it is in mine, the mere possession of cocaine is *prima facie* evidence of a violation of the law—no matter where you got it—unless you are a physician, pharmacist or druggist, and then you are liable to a fine. I think this is a matter which is out of reach of our Association, gentlemen. It is my conviction that we, as food, drug and dairy officials, should not trouble ourselves about a law to control the sale of habit-forming drugs. It is a thing which belongs to the police powers of the states and no doubt is being very effectively handled in many of the states. Some of them have good laws but no money to enforce them, so that they stand as a dead letter on the statute books. And so it occurred to me that a simple statement of what I have been able to learn on this matter would suffice at this time.

I would like to call attention to the fact that there is a Public Health Service Bulletin, No. 13, I think, which deals with the subject of laws governing the sale of habit-forming drugs. That bulletin was written by Mr. Motter and Mr. Wilbert of the Hygienic Laboratory and can be had for the asking, and it is a very valuable work. I would suggest that any of those of you who desire to inform yourself a little bit more upon this subject should secure this little pamphlet. It is very complete. It covers it so far as the federal government is concerned and everything that has been done in the states up to this date. So that it occurred to me that a brief statement would suffice in the circumstances. Mr. President, you may think otherwise, but it was utterly impossible for me to prepare a paper on this subject, and the preparation of a model law I simply would not attempt. That requires a legal mind.

President Wallis: The two commissioners, Dr. Frantz of Delaware and Dr. FitzRandolph of New Jersey, who were selected to discuss this paper, are not present. Is there anyone else who wishes to discuss it?

Dr. L. F. Kebler: I think it is correct what Dr. Caspari says, that according to the way the average state law on this subject is framed the Food and Drug Commissioner has no power whatsoever. There are a few states, however, where they do have power, and it is in those states where the best results are being accomplished today. And therefore I do feel that some activity in this particular direction would be a very good thing.

It is a well-known fact that most Boards of Pharmacy are political appointees. It is also well

known that, at least in some states, that when an appointee is unduly officious he is not reappointed, and under those conditions we certainly cannot expect very good results. Until some other method is devised than the one we now have for the control of this matter, I do not think that we can expect very much good to be accomplished along those lines.

As far as the federal side of it is concerned, dealing with cocaine, we are getting some good results so far. I don't know just what the report will be for July, but during the first part of the year the report was very good. One manufacturer said that the law was operating so well that he was only selling one-half as much cocaine as he formerly did. So that some good has been accomplished anyway.

Mr. H. C. Lythgoe: We have a law that prohibits persons from even carrying these drugs with them. The State Board of Health has to make analyses for the police department. Whenever the police department arrests a man he is searched, and if any of these pills are found on him the sample is brought to us for analysis. We examine them and furnish a certificate of what we find, and the prosecutor fixes an additional charge, which means an additional fine of \$50. The result of this has been that carrying these drugs around is becoming very unpopular.

Dr. L. F. Kebler: Mr. Shannon was telling me some experiences he is having up in Michigan, and it seems to me they are getting some results up there. I think it would be interesting to hear from Mr. Shannon on this subject.

Mr. F. L. Shannon: I don't remember just what Dr. Kebler has in mind, but I think perhaps it was on a case of morphine cure we had up. Was that it, Dr. Kebler?

Dr. L. F. Kebler: Yes.

Mr. F. L. Shannon: Well, we found a concern in one of the small towns in the western part of the state was putting out a morphine habit cure. There were three bottles of it, that he sold for \$5. That was the treatment. And we investigated the matter and we found that the three bottles were all made from the same batch of stuff and that they all contained about 1 per cent of morphine. Of course the usual method employed in treating the morphine habit is to use a series of preparations and to put in the first bottle some morphine, and in the next bottle a little less, and so on, until you end up in the last bottle with none at all. But we found out that this particular stuff began with 1 per cent and it ended up with 1 per cent, so that it would be an indefinite sort of a treatment, to say the least. We prosecuted that concern for not stating on the label the 1 per cent of morphine. And that was because that was as far as we could go under our drug law.

President Wallis: I want to read the list of speakers for this afternoon, gentlemen. It includes Mr. Symes, Mr. McCormick, Dr. Wagner, Mr. Meeker, Mr. Cassius Way and Mr. Porter.

I would like to say that these substitutions have been made on recommendation of the original speakers. In the case of Mr. Way, he has been requested to speak on behalf of Borden's Condensed Milk Co., because Mr. Taylor suggested that his chemist would be the better person to speak to us. Now, these gentlemen will address the convention this afternoon, and I trust you will all be here promptly at 2 o'clock.

Is there any business anyone wants to take up be-

fore we adjourn for a recess? Don't forget the matter of giving your resolutions to Dr. Ladd. The Resolutions Committee may work tonight and will possibly complete their report. Remember, we are going to have our pictures taken now on the front steps, and everybody should go out there promptly.

We will stand adjourned until 2 o'clock this afternoon.

Adjourned until 2 o'clock.

THURSDAY, JULY 16, 2 P. M.

Hon. James H. Wallis, president, presiding.

President Wallis: Gentlemen, the convention will come to order.

I have a letter here addressed to me by the president of the Portland Board of Trade, as follows:

Portland, Me., July 15, 1914.

Mr. James H. Wallis, Pres. American Dairy, Food and Drug Ass'n, Portland, Me.

My Dear Mr. Wallis:—

We have a wonderful municipal organ, one of the greatest in the world—they say the fourth largest—in the auditorium of the building where you are holding your daily sessions.

I would like to have the delegates and their friends hear this organ before leaving the city, and if you can let me know what hour will be convenient, giving me as much notice as you can, I will make the necessary arrangements with our music commissioner.

Yours very truly,

(Signed) FRANK M. LOWE, President.

Now, we all know that this organ is giving daily recitals in the auditorium between three and four, and that is right during our afternoon sessions, and we can't attend those—that is, not as a body. It is possible, however, that an arrangement could be made so that we might enjoy this concert between 9 and 10 o'clock in the morning. I don't know. But at any rate it might be well to refer this communication to a committee and let them work out the best time for us to hear this organ.

Mr. F. A. Jackson: I move that the communication be referred to the committee with thanks.

President Wallis: That we receive this communication with thanks and refer it to a committee.

Mr. F. A. Jackson: Yes.

Motion seconded.

President Wallis: All in favor of the motion say "Aye"; those opposed, "No." The ayes have it. I appoint Mr. Jackson, Mr. Chittick and Mr. Smith of Utah to decide what time we can hear this organ recital.

President Wallis: The committee appointed to see the Mayor in regard to the organ recital reported that arrangements have been made for a recital tomorrow morning from 8:45 to 9:15, and I trust that everybody can make it convenient to be there and enjoy this great musical treat the Mayor has provided for us.

Tonight we will have a meeting at 7:30 and continue the program of the convention proper, and we hope that all the members will be there.

We stand adjourned until 7:30 this evening.

Adjourned until 7:30 p. m.

THURSDAY, JULY 16TH, 7:45 P. M.

Presiding: Hon. James H. Wallis, President.

President Wallis: Gentlemen, you will come to order. We will commence our evening session. Is Mr.

Barney in the room? Well, we will have the paper that was taken from Section B, "A Study of Variations in Weights and Measures in Connection with the Net Weight Amendment to the Food and Drugs Act," by Mr. L. M. Tolman and W. E. Hillyer. Mr. Tolman will read the paper.

CAUSE OF VARIATION IN WEIGHT OR MEASURE OF FOOD PRODUCTS.

By L. M. TOLMAN AND W. E. HILLYER.

The act of March 3, 1913, amending the Food and Drugs Act so as to require a statement of weight or measure upon food packages, provides that reasonable variation shall be permitted and tolerances, recognizing the impossibility of giving absolutely exact weight, following in this the same principle as is applied in the coinage of money and as is applied in weights and measures to scales and weights.

There has been some criticism of this portion of the act on the general ground that the purchaser is entitled to obtain full weight or measure, but I believe that if you give the matter consideration you will reach the conclusion that even if the law had not provided for these reasonable variations and tolerances it would have been necessary, in the execution of the law, to have provided them.



MR. L. M. TOLMAN, Chief Central Inspection District,
Bureau of Chemistry, Chicago.

It is a comparatively simple matter to weigh or measure a product if one is weighing only a few and can give sufficient time to the act to be sure that full weight or full measure is given in every case, but when we come to the consideration of the problem of the distribution of food products on a commercial scale we must recognize that a very different and much more difficult problem is under consideration. The production and packing of food products on a large scale, where it is practically impossible, without greatly increasing the cost of production, to weigh or measure each individual package, necessitates the adoption of rapid methods of pack-

ing and handling and under such conditions variations in the actual weight of the individual package must necessarily take place, and under such conditions the manufacturer must use the best method he can devise and determine what is the average weight of his product packed under these conditions; and our experience so far has shown that even packing as is done in some factories with astonishing rapidity can also be done with remarkable accuracy.



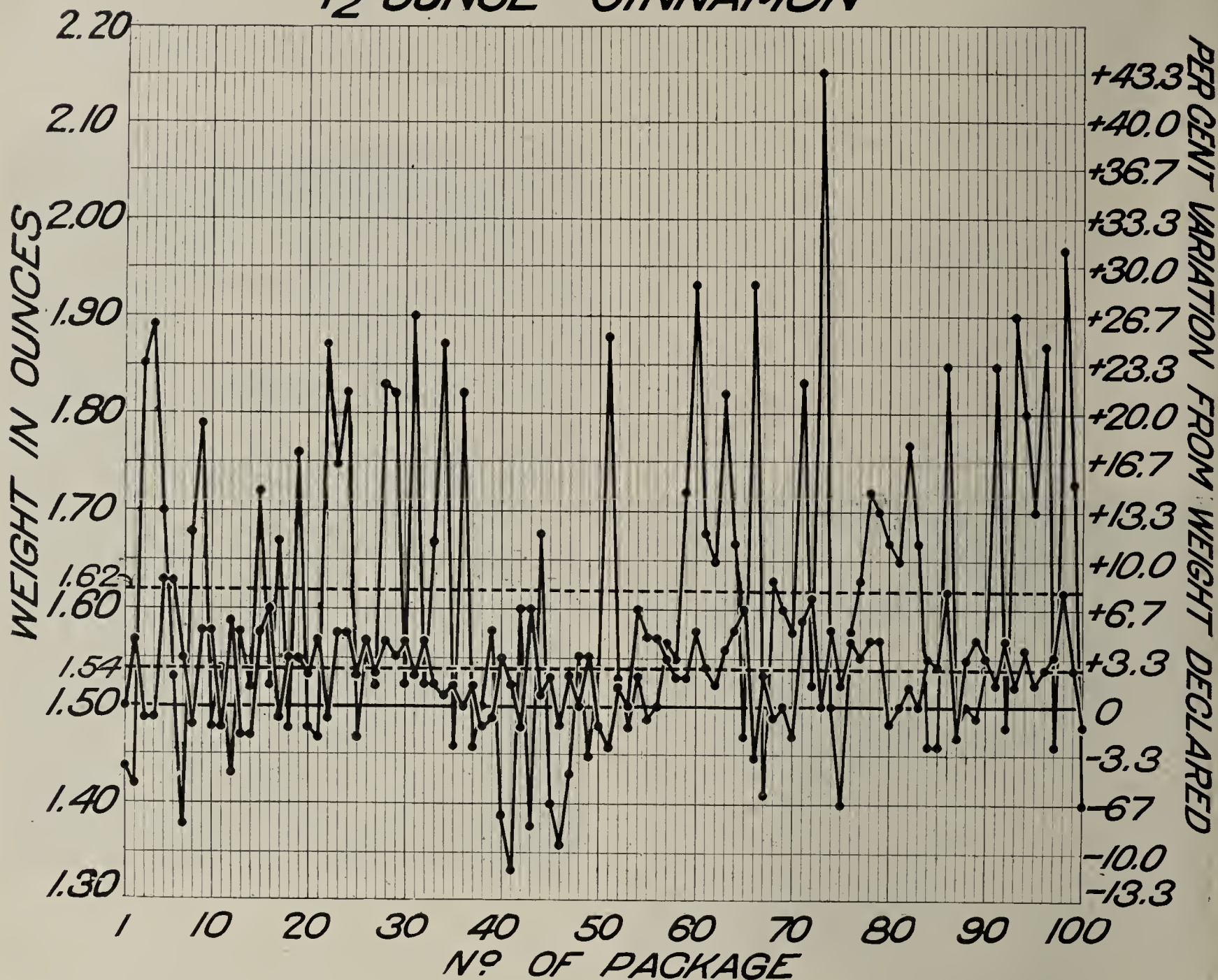
MR. W. E. HILLYER, Bureau of Chemistry.

The committee, in drawing up the regulations, for the enforcement of this act, recognized that there were two classes of variations which had to be considered. First, those variations that might be classed as errors and discrepancies due to the limit of accuracy of the method adopted for weighing or measuring; and a second class, those variations due to changes in weight or measure of the product after it has been packed, due either to evaporation or absorption of moisture; and the regulations, as you will note, consider these in an entirely different manner, holding that the variations of the first class should be as often above as below the declared weight and should, as a matter of fact, average correct. In the second class, however, they recognize that no definite rule should be laid down as to the reasonableness in any individual case, and, therefore, each individual case would have to be considered from the facts in that particular case.

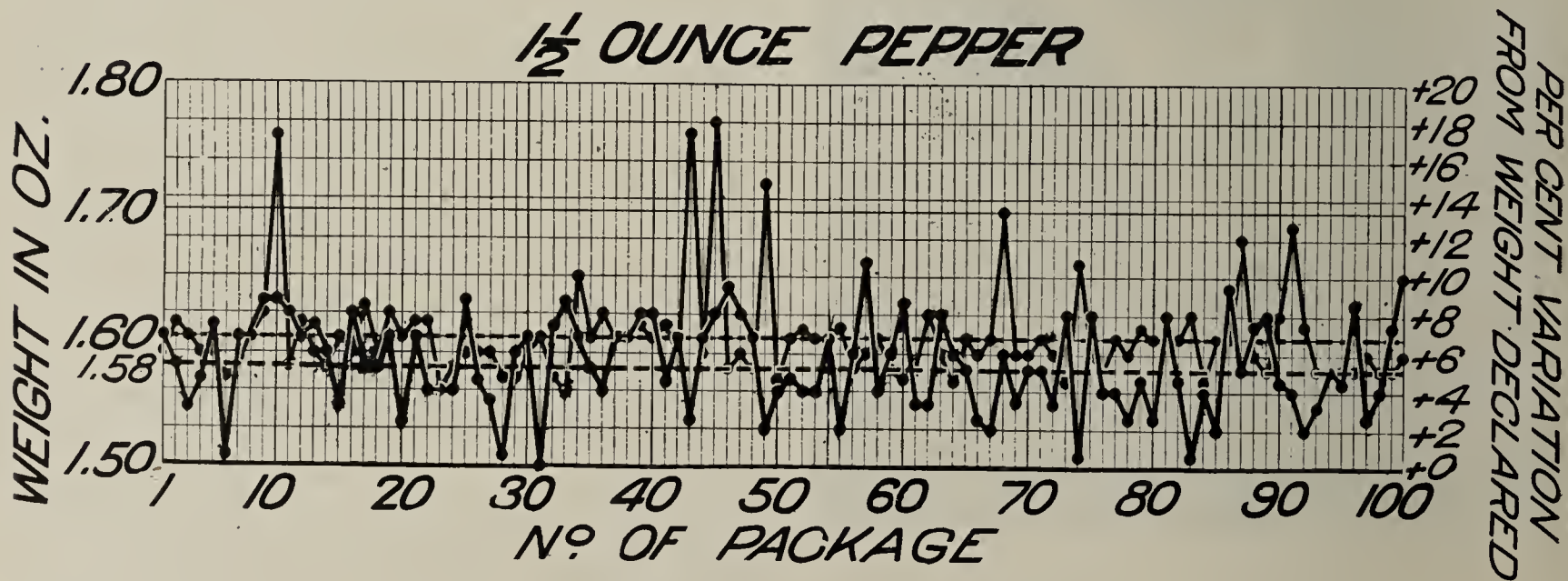
I am going to take up first and discuss some of the results of our experiments to determine the reasonableness of variations of the first class. In charts 1 and 2 have been plotted the results of weighing packages of cinnamon and pepper by hand and by machine. A consideration of chart No. 1, on the 1½-ounce cinnamon, will show that, while the package was supposed to contain 1½ ounces, when packed by hand the average was 1.54 ounces, and practically all of these packages vary between 1.45 ounces and 1.60 ounces, only five packages out of a hundred running above 1.60 and one below 1.45. This chart, I believe, shows what may reasonably be expected from hand weighing of cinnamon in packages of this size, but a study of the packages weighed by machine shows a very different condition. The machine was averaging .12% an ounce above the declared weight, and was showing very wide variation even from the average weight.

This chart, I think, illustrates one point which we must certainly take into consideration in the enforcement of this net weight act, and that is, that a very considerable number of weighings must of necessity be made in order to determine the true average weight of the goods as packed by the manufacturer.

1½ OUNCE CINNAMON



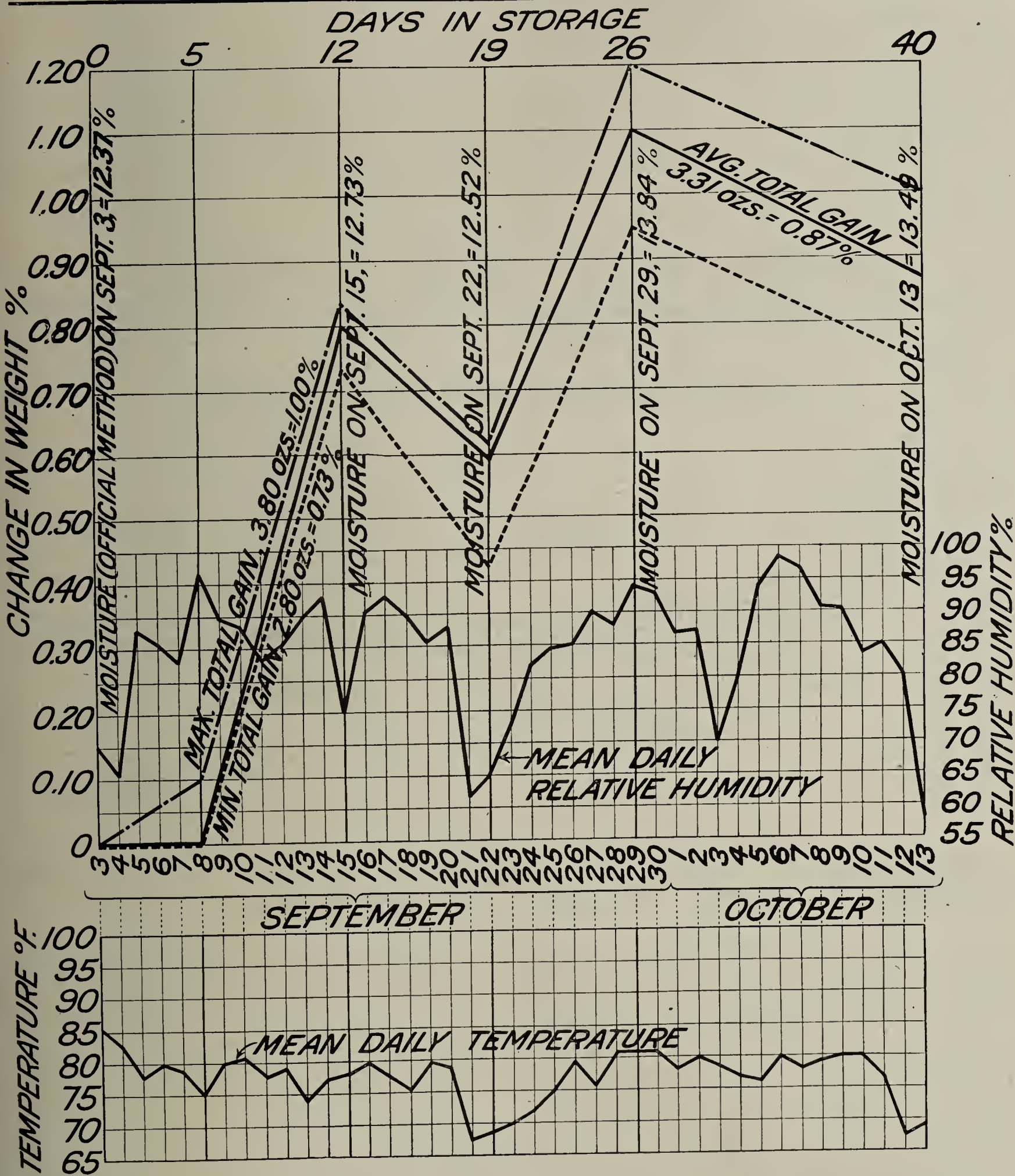
1½ OUNCE PEPPER



EXPLANATION

- WEIGHT OF CONTENTS MACHINE PACKED
- " " " " HAND PACKED
- AVERAGE WEIGHT OF CONTENTS MACHINE PACKED
- " " " " " " HAND " "
- WEIGHT DECLARED

24 LB. SACKS.
STORAGE EXPERIMENT ON FLOUR SHIPPED
FROM ST. PAUL LABORATORY.
STORED IN J. B. CAMORS WAREHOUSE
SEPT. 3 - OCT. 13.



Charts 1 and 2 illustrate another point, and that is, the effect of different materials on the accuracy in weighing by machine or by hand. Take, for instance, the 1½-ounce pepper, machine packed, and you will at once note that the machine delivers much more accurately and with much less variation a certain amount of pepper than it does of cinnamon. A comparison of the two charts shows this so obviously that it is not necessary to enter into any discussion; and if we had a chart showing the packing of mace by machinery we would, in all probability, have even a wider variation than is shown in the case of cinnamon, on account of the nature of the material which has to be weighed. In spite, however, of this very much wider variation in weight in the case of cinnamon, we find that the average weight in both cinnamon and pepper is extremely close, 1.62 in the case of cinnamon and 1.60 in the case of pepper. In the case of hand weighing there does not seem to be any greater variation in the case of the cinnamon and in the case of the pepper.

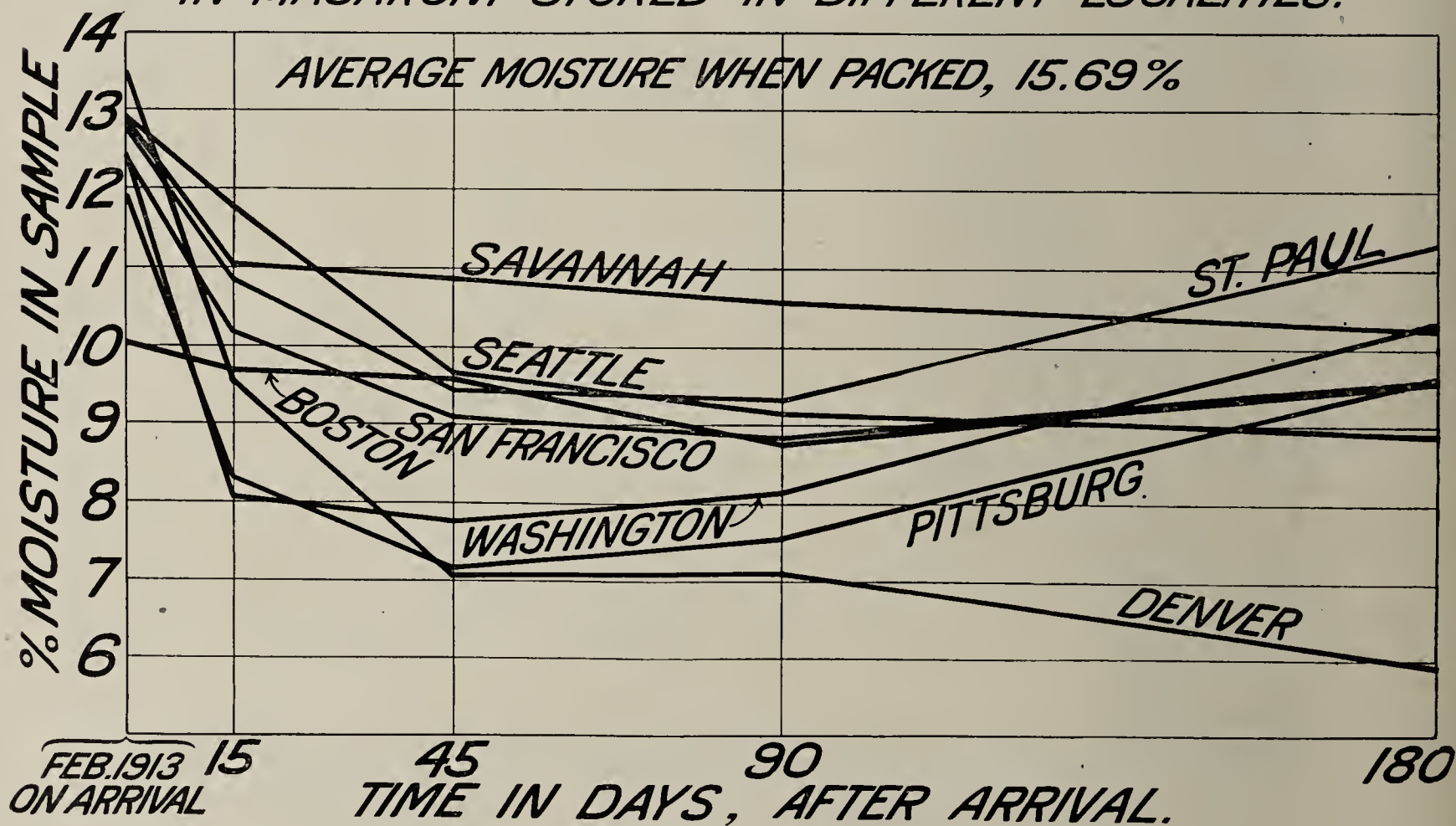
The principal reason why I submitted these two charts for your consideration was to bring out the point of the necessity of making a large number of weighings before reaching a conclusion as to whether or not a product was short weight. It is extremely necessary, however, for the manufacturer to have a very close supervision over his machines to see that they are operating properly and to meet any unexpected conditions. As an illustration: In the course of one of our ex-

periment the temperature at which a product is measured, as it is clear that if bottles are filled at a certain temperature, say 90°F., and are afterwards measured at 50°F., the volume will be materially different; and in products of this kind it seems that the same precautions must necessarily be taken as are by the Bureau of Internal Revenue in the gauging and measuring of distilled spirits, that is to say, the volume should be based upon a standard temperature.

The temperature at which the oils and such products are measured will affect also the resulting volume, and the analyst, in measuring same, must of necessity take into consideration these facts, and, in my opinion, all products of an alcoholic or oily nature should either be measured at a standard temperature or the temperature under which the measurements are made should be recorded so that the volume at a standard temperature may be calculated, if necessary.

In the packing of such products as crackers, ginger snaps and similar products, where it is the practice to fill a certain sized package, and determine by a large number of weighings the average weight of these packages, in order to determine what shall be the marked weight upon the package, very considerable variations are likely to take place. The crackers may vary in thickness from a number of causes, so that there will be a greater or lesser number of units in the package, and it will be only by a very large number of weighings that the average weight will be determined. Here, again, it is

AVERAGE OF FIVE SERIES: CHART SHOWING VARIATIONS IN PERCENTAGE OF MOISTURE IN MACARONI STORED IN DIFFERENT LOCALITIES.



periments in a large factory where they were packing ground mace, a peculiar condition was noted. The machine had been working satisfactorily, but was found on a certain day to be delivering practically every package short weight. On this particular day the atmospheric conditions were abnormal. It was a wet, rainy day and apparently the mace was sufficiently affected so that it was sticking in the drum of the weighing machine so that it was not delivering the full amount, and it was only by attaching a vibrating arm to con-delivered. It is evident from this that the machines must be under constant supervision in order to know what they are stantly rap the drum that the proper amount of mace was delivering.

When it comes to products, such as lemon extract, containing a very large percentage of alcohol with a high coefficient of expansion, it is necessary to take into considera-

evident that, in determining, for the purposes of the enforcement of this law, the average weight in products of this kind a large number of packages must be weighed.

But to take up the second class of variations—variations due to absorption or loss of moisture, I have brought two charts showing the results of certain experiments, chart No. 3 illustrating some experiments on the shipping of macaroni and chart No. 4 on the changes in moisture taking place in flour under certain conditions during storage.

Chart No. 3 shows the variations in moisture content of macaroni shipped and stored in different parts of the country. The plan of this experiment was as follows: One hundred pounds of macaroni were packed in New York and shipped to Denver, where it was stored. A similar hundred pounds of the same lot were shipped to Pittsburgh, Washington, Boston, San Francisco, Seattle, Savannah and St. Paul, and an at-

tempt was made to have these various lots of exactly the same composition and moisture content. These were shipped in the first part of February, 1913, and, upon arrival at the various points, a determination of moisture was made, which, as you will note, varies from 10% at Boston to 13½% at Denver. After fifteen days' storage at Denver the moisture content of the macaroni had dropped to about 9½%, and in 45 days' time had dropped to practically 7%, constantly losing moisture until the end of the experiment—180 days—when it had fallen below 6%. Savannah showed the least loss of moisture.

A rather peculiar condition is also noted, and that is that after the 90 days' period, there is, as a rule, an increase in the moisture content; this was during the months of June, July and August. In other words, during the summer there is an increase as a rule in the moisture content. This was very marked at Pittsburgh, Washington, San Francisco and St. Paul, and it seems probable that if the experiment had been started in the summer time we would perhaps have had a reverse result for our storage experiment.

This can only illustrate the impossibility of laying down a definite rule for this class of variations, and the absolute necessity of taking into consideration all of the facts in the case.

Chart No. 4 illustrates what may be expected in the storage of flour in certain parts of the country under certain conditions. This is a storage experiment carried on in New Orleans from September 3 to October 13, showing the changes in weight and moisture of 24-pound sacks of flour during that period. The moisture content of the flour, at the beginning of the experiment, was 12.37, and, as you will note, increased practically during the whole period of the experiment, reaching a maximum on September 29 of 13.84, after a considerable period of high humidity conditions. This chart, when compared with the chart showing the mean daily relative humidity, illustrates very forcibly the effects of changes of humidity upon the moisture content and upon the weight.

I have not attempted to go into any great details as to the causes of variations in weight, but have simply illustrated, in a brief way, some of the conditions which we must expect to meet in an intelligent manner in the enforcement of the net weight laws, in order that we may be fair and just not only to the manufacturer but also to the consumer, both of whom are certainly entitled to our intelligent consideration.

Dr. S. J. Crumbine: Have you made a check on similar samples purchased in the open market?

Mr. L. M. Tolman: No, not in this work, in the determinations of tolerances all of our work was in factories.

Hon. Geo. L. Flanders: I understood you to say that the machine weighing was more accurate than hand weighing?

Mr. L. M. Tolman: On certain materials it is, yes.

Hon. Geo. L. Flanders: It is not with cinnamon.

Mr. L. M. Tolman: No. I took those two materials because they showed the maximum of differences. The pepper was the easiest thing to weigh and was weighed the most accurately.

Hon. Geo. L. Flanders: Would the manner of packing these things have anything to do with it?

Mr. L. M. Tolman: The manner of packing had very considerable to do with it, yes.

Hon. Geo. L. Flanders: It looks to me like you are trying to find a reasonable variation under the weights and measures law.

Mr. L. M. Tolman: That was the object of the work. It was to give the Department of Agriculture an idea of how and what they must consider in the determination of these tolerances in the enforcement of this law.

Mr. H. H. Hanson: I would like to ask in view of the differences in the moisture content at that point and other places, upon arrival, was the method of determination exactly the same?

Mr. L. M. Tolman: The method of shipment was this: It was shipped on a steamer in the winter time

and probably was heated to a certain extent. It is easy to determine whether or not a package of food of this kind was a pound at the time it was shipped, by taking into consideration the moisture. And I believe we must of necessity take into consideration the question of moisture content in judging a great many food products in the enforcement of this net weight law. It is perfectly apparent from these charts, I think, that shipping food products to different parts of the country makes them vary very materially in their moisture content.

Com. W. D. Saunders of Va.: On these flours with 13% moisture, what do they usually carry? What percentage of moisture do they usually carry when they leave the mills?

Mr. L. M. Tolman: That is a question that I am not particularly informed on. I think flour runs between 11 and 12% as a rule—but I may be wrong on that.

Com. W. D. Saunders: Would you think as a general rule the weight of flour that leaves the mill was rather increased than diminished? How about that?

Mr. L. M. Tolman: It depends altogether on where it is going to. If it goes out to Denver, Colorado, it will probably decrease. If it goes to New Orleans, with the humidity there, it will probably increase in weight. It is a well known fact that the millers or grain dealers in wheat and flour that ship across the water take advantage of that fact, expecting their flour to take up from 1 to 2% of weight so that when upon arrival in Liverpool it will be full weight even when they ship it short weight and they do ship it just short enough to allow for that extra weight they know it will take on. While if it is shipped into arid parts of the country, like Arizona, say, it would not hold even 11% under those conditions. You have to go back to a standard water content.

Com. W. D. Saunders: You think in going to Denver, then, it would always lose?

Mr. L. M. Tolman: Yes, if the flour started out with the ordinary water content, 10 or 11%, it would probably lose.

Com. W. D. Saunders: My idea was that you can get it down to a pretty low percentage. The milling process tends to eliminate moisture and get it down to a minimum.

Mr. L. M. Tolman: Well, I don't think it ever reduces it below say 10%.

Com. W. D. Saunders: Then do you think that 10% would be still further reduced in Denver?

Mr. L. M. Tolman: I don't think there is any doubt but what it would, because we have made a great number of these experiments.

Com. W. D. Saunders: We have some trouble down in our states about weights of flour sacks and they claim it is due to the temperature when the amount in the sack is not up to what it should be.

Mr. L. M. Tolman: I think Mr. Doolittle can tell you something about the weights of flour in New York.

Dr. R. E. Doolittle: We found very little change in the flour that was shipped to New York. We are continuing the experiments by storing the flour under the same conditions that it would be in the regular course of trade.

Com. W. D. Saunders: I should think we ought not to have any such loss as 2 and 3 ounces in a 24-pound sack. But we do. What would you think about that? I have contended that conditions did not justify any such amounts as that. You see you are counting on sending your flour to New Orleans where the conditions are different. I would think the air would be more humid there than it is in Virginia.

Mr. L. M. Tolman: Two ounces on that amount would be 1% below.

Com. W. D. Saunders: Do you think you would find any such amount as that due to the differences in climate?

Mr. L. M. Tolman: I don't know. It depends on where the flour had been manufactured.

Com. W. D. Saunders: In that state.

Mr. L. M. Tolman: Oh, I should expect very much less variation in flour manufactured within the state than if it had been shipped long distances. That is the great difficulty we have to contend with—this shipping of commodities all over the country. The state authorities have really got a much easier time in this matter than we have because we have all these varying conditions to take into consideration. If a product is manufactured within the state and handled and sold right there the moisture content should not be materially affected by atmospheric conditions—but of course I don't know just what might take place.

Com. G. G. Frary: Wouldn't that variation depend somewhat upon the miller too?

Mr. L. M. Tolman: The tendency is for the small miller to have a perfectly normal water content and the flour gains in weight rather than loses. But we know that the large millers keep their moisture content very even. They control it.

Com. G. G. Frary: And they keep it to the maximum?

Com. W. D. Saunders: The contention is made that it is due to some such cause as that, but I think you will see that when they are caught up they can correct it. It will run pretty uniform for a couple of months afterwards and so it looks to me as if it was put up short weight to begin with.

Mr. L. M. Tolman: I should think the way to determine that would be to make a large number of weighings within a very short time. I think, at least in our work, we ought to get away from a long period of storage after it has entered interstate commerce, because by that time there are too many factors which have considered and it makes your proof too difficult. My idea is to take your samples soon after they have been put out and get a large number of them and then show it is short and in that way you can eliminate any question of what may have taken place as a result of storage for a long period of time.

Com. W. D. Saunders: I see you have some results on macaroni there. You have repeated these experiments on several products?

Mr. L. M. Tolman: Yes, but I did not bring the results along. We have much material there but I had to just pick out a few.

Com. W. D. Saunders: Well, it is very interesting to see your charts there, showing the moisture taken

up under certain conditions and given off under others.

Mr. H. E. Wiedemann: There are two questions I would like to ask. You say temperature has something to do with the volume of the product, and that is especially noticeable in syrups. In your opinion should the volume be given of the contents when the syrup is cold or when it is put into the can hot?

Mr. L. M. Tolman: When it is cold, certainly.

Mr. H. E. Wiedemann: Then there is another question, and that is what is the number of samples you



MR. W. D. SAUNDERS, Food Commissioner, Virginia.

would consider a reasonable number to examine before making a citation for short weight? When you have an opportunity of getting samples in the establishment itself it is a simple proposition to get one or two hundred but what are you going to do after it has been in commerce? I had occasion before I was connected with a food department, to know of a case where the federal department cited a firm to a hearing on a liquid material that was supposed to be one pint and was 10 cc. short of a pint. The hearing was held and it developed that the hearing was called on tests of one dozen bottles taken from one shipment. They were all in one case and were sent out at the same time. It doesn't seem to me that it was quite fair to cite a man on a proposition like that. Those

people always have an automatic measuring device of some kind and it is very liable to run short one day and over the next. It is hard to draw the line so sharply as all that.

Mr. L. M. Tolman: I don't think that is the general policy. When you find all the packages run short then you can weigh a fewer number of packages than if they are running partly above and partly below. Now if I was going to weigh black pepper in 2-ounce packages I would want to weigh a whole case, but if you only weighed ten or a dozen and they were all below, I still think you would have a good case against the manufacturer.

Dr. S. J. Crumbine: Is it not true that flour immediately after milling has a higher moisture content than the wheat from which it is made?

Mr. L. M. Tolman: I am not familiar with that question.

Dr. S. J. Crumbine: Hard wheat, before it is milled has steam or water added to it—that is necessary, it is a commercial necessity. Nobody finds any fault with that, but the moisture content is in excess of what it was in the wheat from which that flour was made. Now the question is should we be called upon to allow for the loss of moisture that was added to the wheat, notwithstanding it is commercial necessity. Are we called upon to permit the evaporation of water that is added?

Mr. L. M. Tolman: I don't know. It seems to me the best way to do would be to establish a standard moisture content. If the Standards Committee would lay down a standard moisture content in flour that would cover it, and I think if the product was still short weight when referred back to the standard that should constitute a violation of the law.

Dr. S. J. Crumbine: That matter has come up in our state and I want to deal fairly with it and I wanted to know what you men think of it.

Mr. L. M. Tolman: I don't know anything about it, really. I couldn't answer that question, but it seems to me if a manufacturer deliberately adds an excess of water—

Dr. S. J. Crumbine: It is not in excess. It is an absolute necessity. And the flour contains more moisture than the wheat from which it was made, but the point is, are we called upon to allow for that evaporation?

Mr. L. M. Tolman: I think this: If that is standard flour when it is finished, and is salable then as standard flour, then we ought to take it into consideration.

Dr. S. J. Crumbine: You can call that the over-run.

Com. W. D. Saunders: You state that as a fact—that flour does contain more moisture than the wheat from which it is made?

Dr. S. J. Crumbine: I so understand.

Mr. J. T. Willard: I think it varies with the circumstances. They claim the added water evaporates and that there isn't really any gain. I haven't investigated it especially but I don't doubt but that it would vary under different conditions. If the wheat is very dry and is milled in a dry time it would be necessary to add more water, of course, and you might have a gain then over what you might have had if the wheat had been of the ordinary moisture content. But the flour is dried out in the process of milling so that the process of manufacture tends to offset the water that was added to temper the wheat.

Com. W. D. Saunders: That has been your experience? That it gives off water during the process?

Mr. J. T. Willard: Oh, yes.

Com. W. D. Saunders: That is my idea. I have always believed that it was drier after milling.

Mr. J. T. Willard: I don't think you can say that it is drier than the original wheat. It is drier than the wheat as it goes to the rollers.

Com. W. D. Saunders: That is what I meant. Have you experiments to show that? And what wheat is so treated?

Mr. J. T. Willard: All hard wheat is so treated with water before milling.

Com. W. D. Saunders: Because we don't do it in Virginia at all. The large millers may do it but the smaller ones don't.

Mr. J. T. Willard: It has to be treated with steam to make it possible to run it through the rollers.

Com. W. D. Saunders: Doesn't the bran give undue proportions of moisture? It seems to me that would carry a good deal of it.

Mr. J. T. Willard: It would. A good deal of that moisture is absorbed by the bran, but even the bran becomes heated, so that it is claimed that the water must be evaporated.

Com. W. D. Saunders: Carried off by the suction perhaps.

Mr. J. T. Willard: The air passes through.

Com. W. B. Barney: How soon do you expect to have some of this very valuable material reduced to the form of a bulletin so that it might be sent out to the Commissioners who have the enforcement of net weight laws in their states?

Mr. L. M. Tolman: That I am unable to answer, Mr. Barney. We are working over the whole data at the present time and if we wait until we finish all of it before we publish any of it it will be a considerable time before it is worked over and put in shape for publication. You can well imagine that it is a very large task to tabulate and chart all of these experiments. Part of the work I suppose, if there was a great demand for it, might be gotten out but I haven't any definite idea as to the possibility of that.

Com. W. B. Barney: I think this is a very important matter and it certainly would be of value for us to have it in some available form. We can't see our way clear to getting out a schedule of tolerances and allowances at this time and then have the federal authorities come out with something very different so for that very reason we have waited for the federal authorities to act.

Mr. J. S. Abbott: I think Mr. Barney there has brought up a very important point in connection with these tolerances in the new net weight and measures amendment. If the state men make and announce their tolerances before the federal government does, each one acting more or less independently, why in the course of a few months or a year in place of there being any uniformity among us there will be anything else but that in these new regulations.

If the state men, however, were to study the problem along the same lines that the federal government is studying them, or if all the state men were studying them along the same general lines themselves I suppose they would come to some conclusions that would be pretty close together and I have wondered if

this subject should not be taken up at this meeting perhaps and some sort of an arrangement agreed upon in order to bring about some kind of uniformity and co-operation in the matter. I think it is highly important. (Applause.)

Now, of course, I don't know that it is my function exactly to suggest to the convention just how this ought to be done, but I am very glad the question came up like it did and I think it would be a very good thing for the chairman, maybe, to select a committee to consider this question and propose something to the convention while we are here all together looking toward a harmonizing action, toward uniformity as a basis for future action.

Now I don't know whether that would be the best way to handle it or not. Off-hand I wouldn't want to say how it should be handled but I certainly should like to see some uniformity of action in regard to this very thing. After we make a step, after we go ahead and make regulations we are very loth to change them, even if the federal government comes along and establishes a different basis of operation, so I wish the members of this convention would think about this and either propose something tonight or think up some method of handling the matter while we are here.

President Wallis: We have a committee on co-operation, Doctor.

Dr. S. J. Crumbine: I suspect there has been a lot of this work done, if we knew where to find it, that could be tabulated and be of great value to us. Mr. Willard here is too modest to say that he has done some very extensive experiments covering a period of about a year.

Mr. J. T. Willard: Oh, only three or four months.

Dr. S. J. Crumbine: We folks in Topeka undertook something in investigating the loss of weight of sacked hams and bacon in our efforts to try to compel the sale of those packed articles by weight but we were unable to do much. The results indicate that it is impossible to manage that and I suppose other states have done similar work and it might be a good thing for the committee on co-operation to find and tabulate all this matter and get it speedily before the convention.

President Wallis: I think that is a good suggestion, Dr. Crumbine.

Com. W. D. Saunders: This particular question of the gain and loss in the weight of flour interests me very much. It has been brought out here that Mr. Doolittle has made some experiments on that matter and it would be very interesting, to me, at least, and possibly to the other members of the convention, to hear from him.

Mr. R. E. Doolittle: I am not prepared at this time to give a report of our work on flour. There is one point, however, in connection with the short weight matter that has been brought out in our work that I would like to call attention to and that is the great difference in the efficiency of the weighing machines. We did a lot of work on coffee and shipped it to various cities in the country, also other products, and we found that some of those machines were very poor and some that were very efficient in the matter of filling a definite weight in a package. This is a matter that is really up to the manufacturer, but it is of considerable importance in this line of work.

Com. James W. Helme: It has dawned upon me here from what Mr. Tolman and others have said that the longer we wait for national regulations concerning this net weight measure business, the worse off we will be. I don't see how we are ever going to get a uniform temperature everywhere throughout the United States and that, it seems, is necessary. These charts show that in Denver we have one situation and in New Orleans we have got another altogether different and in Michigan I suppose we have another. Dr. Crumbine says the millers in Kansas add water to their wheat when they make flour and the millers in Michigan tell me they never heard of it. I don't see how even after our friends the federal authorities have gone to all this trouble we are going to get any uniformity out of it. It looks to me like it is up to each state official to fix his own allowances and tolerances. It seems to me like that's the only way to do until we have a uniform climate and temperature all over the country because until that happy time arrives it looks like we can't have uniform weights.

Mr. J. S. Abbott: That suggests to me another important thing to be considered here in the establishment of tolerances and that is on what sort of principles shall these tolerances be established. In my judgment here, this matter of moisture that is lost or gained after a product is milled is not a proper thing for consideration in the establishment of tolerances. In other words, the tolerances established and laid down in a regulation should be the limit of possibility and probability in the legitimate manufacture of that product. For instance, a miller is putting out flour in 48-pound sacks. Now we will send a man to that mill and let him weigh the bags put up for 48 pounds net, according to the method of weighing that flour into the sacks. I mean the best method of weighing flour into those sacks. Supposing that according to the best method of weighing the flour automatically into those sacks we find the miller should be held to a limit of 4 ounces, that anything more than 4 ounces out of the way should not be tolerated. Now then, the extra loss by evaporation in shipping that into a dry climate is a modifying circumstance the Commissioner will have to take into account when he tries to bring this miller to account under the law for the sale of short weight packages, but it should not be considered in the establishment of tolerances. In that way, every man will have to determine what this variation is for the different locations, but the tolerances will be a different proposition and worked out on a different basis. At least that would be my judgment of the best way to establish the tolerances.

Mr. L. M. Tolman: I think the committee very clearly brought out what Mr. Abbott has just said, that there were these different classes of variations that had to be considered and it was impossible to lay down any rule, and that was where a product was shipped about the country—because the results showed that to be evident. But when it comes to the other class of tolerances, the committee laid down this rule: Some ought to be above and some below; in other words, the average ought to be right. I cannot, for myself, see any trouble about the establishment of tolerances, or any great need of them for that class of goods, so long as the packages average correct

and are not very widely varying. It seems to me that that is about what we will have to meet in the end in order that we can be sure the average content of the package shall be right. I think a man's goods ought to average all right and that shows he isn't short-weighting the stuff intentionally. If a man is trying to put a certain weight into a package, if he is honestly trying to do that, his goods are going to go up and down, they can't be always identically the same, but they are not going to be always below either and so I say if the average is all right I can determine what to do. So the question of laying down a tolerance of an ounce or two ounces or anything of that kind doesn't appeal to me as being important as long as we maintain the principal all right, as long as the average pack is correct.

Hon. Geo. L. Flanders: If you were shipping flour from a moist to a dry climate, say to Denver, and when 3 ounces was what you would expect on the particular size package, but when it got there was 4 ounces short, would you think that was a violation?

Mr. L. M. Tolman: I would determine the content of moisture in the flour and then from that basis calculate whether or not the package was of short weight when it started. If the package had lost that much water I would not consider it short weight.

Hon. Geo. L. Flanders: My point was, that within the limit of variation you would say the man was all right.

Mr. L. M. Tolman: Unless I could show that it was short weight in another way.

Com. G. G. Frary: That would be all right in a case of an interstate shipment but in our state it seems that flour shipped from New York to South Dakota, which is almost as dry as Denver, might be shown to have contained enough moisture and weighed enough at the time of shipment to make it pass and yet the consumer in our state would suffer just the same and I think the manufacturer who is doing that interstate business has upon him the responsibility of so adjusting his labels that when the goods reach the consumer those labels will tell the truth and if I recall the food inspection decision on the net weight regulations correctly, it was stated that the tolerance would have to be determined in each individual case. I think that is the only thing we can do, even by co-operation. I don't see how we can get out tolerances to apply to all cases. It seems to me that they must be considered in each individual case and in our state, where the laws are passed for the benefit of the consumer, the package must come up to within a reasonable amount of what it is stated to contain. That is the position I take.

Dr. H. E. Barnard: With reference to this benefit of the consumer matter we should not forget that water is pretty cheap in most places and that the consumer is just as well off if the package has lost a little water. I feel that if we are going to protect the consumer, it will have to be done by inspection at the place of manufacture. That is where we will have to detect the short weight. We will have to pass on the goods right there.

Mr. J. S. Abbott: I would like to know how many states are considering this question of tolerances. Hold up your hands. How many states have established tolerances already? Connecticut, New York and Nevada. I wonder how many states are contemplating going in-

to this subject some time soon? Missouri, Rhode Island, Indiana, Louisiana and Utah—oh, a whole lot of you are. Well, I see there are quite a number that have the thing in prospect, in some immediate prospect.

Com. J. A. Jackson: We have an amendment to our law which was passed this last May and it goes into effect eighteen months from that time, so we have in mind regulations for its enforcement and would appreciate suggestions in that direction.

Mr. J. S. Abbott: Mr. President, I hope you will excuse me for taking up your time in this way but it seems to me this is a very opportune time to consider uniformity through this new office in the Bureau of Chemistry which I happen to have charge of, inasmuch as there are only three states that have already adopted tolerances and there are ten considering the question in the near future, and the federal government is working on the matter too, and while I don't know now anything about the principles on which the government is working this thing out (because it is entirely foreign to my function to go into the question of tolerances), still I do feel like we ought to have some sort of uniformity of action and that we ought to get together in some way or other so that we can get some uniformity while we have a chance for it. And I will take it as a great favor if you gentlemen who are contemplating this will keep me advised as to what you are doing and I think I can keep you informed as to what the Bureau of Chemistry is doing, as soon as they have finished one of these subjects.

I happen to know that they have done considerable work on the tolerances for flour and after they are established I will see that they are sent direct to you. Of course they would be sent to you anyhow but I think I can get them to you a little quicker.

Com. James Foust: I desire to move that this matter be referred to the committee on co-operation and that they report something here tomorrow afternoon at the 2 o'clock session.

Motion seconded.

President Wallis: You have heard the motion. All in favor of it say "aye"; those opposed "no." The ayes have it and it is so ordered.

Dr. Chas. Caspari, Jr.: I rise for a point of information. I would like to ask the government officials if they are sufficiently prepared in this matter to put into operation on the 1st of September the weight and measures law.

Mr. L. M. Tolman: I don't know whether I am called upon to answer that question or not. But I think we will.

Dr. Chas. Caspari, Jr.: The reason I asked that question, Mr. Tolman, was that it has been stated that the work was still in progress and the work not completed in some instances at least and I wondered if the law could be put into operation on the first of September. The Maryland legislature does not meet again until January, 1916. The last session adjourned two months ago, and we attempted to introduce something in this line but were advised to keep hands off until the federal government had something in working order, which seems to be a long while off from what has been said here this evening.

Mr. L. M. Tolman: Well, I don't see any difficulty about it if the law was going into effect tomorrow. We could enforce it on the general principles laid down in the regulations without the issuance of any

special tolerances. I can't see any great need of them but anyhow they will be out from time to time as we have sufficient data. But the committee laid down general rules which I think are sufficient, without any further tolerances, to enforce the law.

President Wallis: The matter is disposed of now by being referred to this committee under Mr. Foust's motion. We will hear Dr. Barnard's paper on the "Development of Food Industries."

Dr. H. E. Barnard:

THE DEVELOPMENT OF FOOD INDUSTRIES.

We may entertain two views of food control; one that the work is purely regulative, the other that it is constructive in character and that food law enforcement is but a feature of the work of a food department. The various states have passed laws in general varying but little one from the other. The officials of these states, however, have developed pure food control along widely different lines, and the results they have obtained have varied as greatly as the methods they have employed. Unquestionably the first food laws were intended to be regulative, to prevent fraud and to protect the consumer. They were designed for protection against the dairymen who by the addition of water stretched a ten gallon dairy to supply a twelve gallon route; to stop the fraud in the sale of oleomargarine for butter and to secure a genuine maple flavor for those fortunate few whose early associations give rise to memories of the fragrance and aroma of boiling sap and candied maple sugar. But in the course of food law enforcement the dairy inspector has learned that the way to secure a good milk supply is not via the police court, but by the education of the dairymen. The oleomargarine industry is developing rapidly now that manufacturers have finally appreciated the fact that there is a legitimate use for their product and that it ought to go to market on its own reputation instead of as butter. Of this fact I am certain, no food commissioner who is familiar with his work now expects support because of the lurid tales he can tell of food fraud and food poisoning, nor does he seek it through the medium of pure food exhibits, in fact horrible museums filled with antiquated labels, imitation coffee berries and adulterated spices whose somber hues are lightened by the display of gorgeous and highly colored bits of cloth dyed with the aniline colors extracted from soda pop and strawberry jam. Such methods of work were effective, perhaps they were necessary, but they are now archaic. Food manufacturers obey the law not because they are afraid of publicity, but because they know the development of their business depends upon their ability to secure the confidence of consumers and to gain that confidence they strive to produce goods of quality and to label them in the devious ways required by the several states and the Federal Government.

I believe, and I know that many other commissioners hold the same opinion, that the pure food work of the future will be very largely constructive in character and that the proper work of a food department is the development of pure food industries.

Several of the states are already equipped with officials whose duty it is to develop industry. Sometimes these commissioners are called immigration commissioners; sometimes labor commissioners. They are, or ought to be, industrial secretaries who use their office for the development of new industries. So far as I know no state gives especial attention to the development of food manufacture. It must be admitted that the irrigation of arid lands in the west and the reclamation of swamp lands in the east and Mississippi Valley Basin make possible an increased production of raw food material. The work of the experiment stations and the extension work that carries direct to the farmer the thing he needs in the growing of better crops of wheat and corn, hogs and beef and dairy products, all tend to the production of larger quantities of foodstuffs. The food commissioner fits in admirably in this scheme of developmental work and he finds waiting his advent a very large and highly important field of endeavor which is not as yet covered officially and which is but touched superficially by manufacturing interests. The Federal Government is already in the field. The work being carried on by Dr. Mary Pennington in the handling of eggs and poultry is of inestimable value to the egg and poultry trade, to the producer of poultry products and equally so to the consumer. The work of the Bureau of Animal Industry in a way follows these lines and the Bureau of Mines, another

department of the Government which has but recently begun active work, is devoting a large part of its force to constructive work. If the Bureau of Mines finds it advisable to tell miners and owners of valuable ore deposits how to work up these deposits is it not a feasible thing for the Department of Agriculture through its Bureau of Chemistry or for state food commissioners to show how raw food material may be worked up into valuable products, thus increasing the food supply and contributing materially to the effort to reduce the cost of living.

In our laboratories we have always endeavored to have on hand some problem, the solution of which will be helpful to industry and so to the people of our state. One year, for instance, we gave much attention to the study of the depreciation of standard pharmaceuticals. For another year we operated a soda fountain under the ordinary conditions of trade and the facts we learned have been of great value to the soda fountain operators through our state, and perhaps even in the wider territory. This last year we have completed an exhaustive study of the bread wrapping problem so that now our bakers and the bakers of other states have at hand facts concerning bread wrapping hitherto unavoidable. But perhaps our largest work has been in connection with the development of our canning industry. For several reasons Indiana has come to be a large canning state. It is geographically well located and its soil productive of fruits and vegetables. The Indiana canner a few years ago put these fruits and vegetables into cans and sold them on the market. That is about all he did, that is all he knew how to do save in a few instances. Other canneries were operated, like the canneries throughout the country in a haphazard fashion. They were not sanitary, they were hardly clean. The raw material used was such as came to the receiving platform. That the goods produced were acceptable was due to the fact that the consumer then gave little heed to the conditions under which his food supply was prepared. At the present time through the efforts of our department and very largely by reason of the co-operation of our canneries with the department, Indiana packed goods are of superior quality. They sell better and for a better price because they are stamped "Packed in Indiana." The industry is developing rapidly and along proper lines. The canner knows how to build his plant; what kind of machinery to install; how to equip it so that it will be properly lighted, sewered and ventilated; how to protect his products from flies and how to dispose of canning factory wastes. All of these problems have been taken up by our department and when orders are issued the method of carrying out the instructions accompanies the order. This last fall we ordered every canning factory in the state to install toilet and dressing room facilities. We furnished in each instance a blue print showing an approved construction, together with an estimate of the cost of such work, and in order that the estimate be fair, bids from different parts of the state were attached. We furnished complete specifications and that the work might fit the purse of the practical canner these specifications were drawn for high priced, moderate and cheap construction.

We propose this season to do our utmost to relieve the canner of a constant source of expense and trouble due to the fact that it is frequently difficult to find means whereby to dispose of wash water and canning factory wastes. If all the money that is spent by canning factory operators in employing counsel and in litigation arising out of damage suits by owners of land through which the sewage must flow could have been expended in the installation of suitable sewage disposal plants, the industry would have been far better served and peace and harmony would dwell where now is a constant warfare.

Is it true that there is nothing new under the sun? If we are discussing philosophy or religion the statement may be correct, but as food commissioners and chemists we must take exception, for every year a really new food becomes available for our table. Just because a food is new, an original idea unusual and different, is no reason for condemning it. Just because it is manufactured from otherwise worthless material is not an argument against its employment. If a man can make starch out of sawdust, or a sugar from corn by inexpensive methods of treatment, the world is the better for his efforts, for it will be better fed thereby. In Germany the food industry is far more carefully conserved than in this country. There are no wastes there. The peelings from the potato, even the vines, are dried and baled for cattle food and all the water in the potato is removed so that the consumer buys concentrated potato instead of, as we do, a vegetable containing nearly 90 per cent of water on which freight

charges aggregating a large part of its value have been paid. This season we shall make in our state a determined effort to conserve the waste products of the canning factory. For several years past the pea vines from the vineries have gone into silage, and sweet corn husks and cobs have also been utilized. But the very valuable refuse of the tomato has either polluted the streams or found an unprofitable use as fertilizer.

Now tomatoes are largely water but the seeds are rich both in fat and protein. They are worth almost as much as cottonseed meal as a cattle food and like cottonseed furnish an oil of no small value as an edible oil. One canning company proposes to save the skins, cores, and seeds of a million bushels of tomatoes this coming canning season. If they can be handled economically, as I think they can be, the profit in these by-products will be no small portion of the profit in the industry. Indeed, it may well be that the material now the waste product of the canning factory may in the future represent the sole profit, and that the canner may pack his goods and sell them at cost and yet at the end of the season count a handsome profit for his work. But you say, and you may perhaps well say, that this is no business of the food official. I am not so sure, indeed I believe there are many reasons why it is a very real part of the work of the official. Whether or not under present laws it is possible to step aside from the beaten path to develop these new fields is a question to be determined by each commissioner in his own state. I am sure that if it can be done his department will outweigh a hundredfold the criticism directed against it when its only effort is regulative and punitive. If a commissioner can help one progressive producer to better things, he will accomplish more in food control work than if he uses the law to penalize a dozen recalcitrant standpat manufacturers.

President Wallis: We will now listen to a paper from Com. James Foust on the "Advisability of Special Oleomargarine Legislation."

ADVISABILITY OF SPECIAL OLEOMARGARINE LEGISLATION.

By JAMES FOUST, PENNSYLVANIA.

In discussing this assigned subject, I shall assume that the "Special Legislation" mentioned is legislation of the prevailing type relating to this product—legislation involving licensing, positive labeling, and color limiting features, as contrasted with our general food laws.

With this understanding of the subject, the question takes a new face, for we already have, in practically every state, special legislation of the kind described regulating the manufacture and sale of this butter substitute. So the question really is, should this body of special laws be repealed, and reliance be placed solely upon our general food laws for the prevention of abuses in the oleo trade?

To this question thus stated I would say most emphatically "NO."

This answer is not based upon any objection to the sale of oleo as such, but is compelled by the history of the trade in this article ever since it was introduced as a butter substitute—a history full of fraud, of evasion and even defiance of the law.

It is said, on the other side, that the present leaders of this industry recognize the continuing public prejudice has been, in great measure, the result of these evil practices, and that they are now agreed that the butter flag should not be hoisted on the oleo ship, but that it should sail under its own emblem. How far the real captains of this industry are now moved by motives of honesty or of far-sighted policy, and how far by the increasing dangers and penalties of sailing under a false flag, I do not know. But I am certain that the ease of deception and its great financial advantage when successfully carried out, still remain to tempt a host of petty dealers who have an eye only for the present penny and don't have telescopic sight by which to see the more distant dollar.

It is not unjust to make the oleo trade bear the penalties of past misdoings until by a reasonable period of strict and faithful obedience to existing laws they give warrant for the belief that they will behave when less carefully watched, less strictly regulated.

As to the several features described in special oleo legislation: I believe in license requirements, because they enable

us the better to watch the business. I believe in reasonably high license fees, not so high, on the one hand, as to prevent a reasonable distribution of the product, nor so low as to bring into the business great numbers of irresponsible dealers. The Pennsylvania License Fees are \$500 for wholesale, \$100 for retail, and \$50 for hotel or restaurant licenses. In the main, this schedule of fees seems to be accomplishing the purposes just mentioned, without considerably affecting the retail price the consumer has to pay.

I believe also in prohibiting the sale of oleo that is not made and kept free from coloration causing it to resemble butter of any shade of yellow. If you keep the imitative color out of oleo, you eliminate the fraud and keep the price down to a normal level. If you permit imitative coloring by any method, you increase the fraud and raise the price, almost if not quite, to the butter level.

I believe in requiring that the wholesale and retail packages be stamped "OLEOMARGARINE" in a clear, unconfused manner, and that hotels and restaurants using oleo as a butter substitute be compelled to display placards stating the fact.

The present Pennsylvania oleomargarine law has been in force for thirteen years, and since it has been fully interpreted by the courts and so amended as to standardize the maximum color limit allowed to the article, it has been working well. The people who want butter, get it; and those who wish oleo, get it at a price relatively much lower than in the past; and, despite the color limit, are buying it more generally than ever.

President Wallis: Mr. Flanders of New York will discuss this paper.

Hon. Geo. L. Flanders: Mr. President, I am taken a little bit by surprise. I did not think that paper was coming tonight but I will discuss it a few moments extemporaneously.

I believe in special legislation for oleomargarine. The first reason is that oleomargarine is a product which is a substitute for a necessity which goes to the table of the people of this country three times a day. The results are that the amount made to satisfy that demand as a necessity is large and naturally there is also a chance for a great profit and therefore, ingenuity keeping pace with greed, there is an incentive to produce substitutes for this necessity of the table. It is a product which the history of the commodity indicates must have special legislation, not because it is a greasy subject and might easily elude those who are after it but because it imitates a great food product. As a substitute for butter it is all right, and at this point I want to say that in all the work I ever did in this direction I never did once say that its sale should be suppressed or stopped. I have heard that somebody made the remark "Flanders has now reached the stage where he thought oleomargarine could be sold." I have always held that it required special legislation. Why? Well, the first thing the oleomargarine people sought to do was to make it smell like butter, taste like butter and look like it and then they got to selling it as butter.

Now the fundamental principle of all food legislation is that the consumer shall not be deceived. Now it may be healthful and wholesome and pure—I don't know what "pure" means, but a product that is healthful and wholesome may sustain that reputation in varying degrees. But letting that part of it go, and that it is cleanly as now made and that it is a substitute, that some people want and that therefore they should not be deprived of it, yet it remains that in all its history the manufacturers have always tried to make it so that it is possible so to sell it to the consumer that he will think it is some other product, butter. Not that they in the first instance sold it for anything but what it was, but that they made it in such a form that

it was possible to do it and in the last analysis, at the hotel table it is placed before the consumer in the form of butter. They will tell you the paper jacket was labeled. Yes, but by the time it reaches the consumer that has been taken off. He never sees that label and can't tell the difference.

There was a little instance I told last year at Mobile and I will repeat it now. There was a gentleman present from Texas. He was sitting at the table with me, and when the waiter began to serve us he put something upon the table which was pronounced to be butter. I didn't think it was butter, but he assured me that it was. I said, "Well, I am from New York, and I am accustomed to eating butter and I like it and so will you please bring me some butter." He said, "That is butter." I said, "No, that is oleomargarine and some people may like it, but I am in the habit of eating butter and maybe I'm a little cranky about it but I prefer butter. See if you can't get me some." He still protested it was butter and I asked him to call the head waiter. He came and insisted two or three times that it was butter, but I still held my opinion and he finally said that they didn't have any butter in the house. But he was deceiving me and kept at it as long as he could and tried to make me eat what I did not want, attempting to make me take a substitute.

Why does that happen this way? Simply because there is a good deal of money in it and so they greedily want to put that substitute in such a form that it is possible to deceive the final consumer. Now we ask that there be some special legislation so that the consumer may not be deceived. One of the gentlemen who spoke here today or read a paper, said that in the interests of the consuming public and the conservation of the food supply of this country it was a shame to have this tax on oleomargarine. Now the Internal Revenue Commissioner said in Washington, in considering this matter not long since, that not over 3% paid that tax and that 95% of the oleomargarine sold in this country had a tint the color of butter. If that is true, why does the ten cent tax add a cent to the cost of the material? What do they do, however? We sent out upon the market and bought some oleomargarine and the white oleomargarine sold for six cents less than they were charging for tinted goods. It was a careful selection of material that had produced that oleomargarine the color of butter, not an added coloration, and for having that color they added six or seven cents a pound.

Now let us consider another proposition for a moment. It is a fact that is just as patent as can be to the people who watch it. In June they buy as much butter as they can and store it until fall when the price of butter is higher, up to 45 cents and higher, and then our benevolent friends who are so much interested in the consuming public come forward with that fine air of magnanimity and say, "See what we have done for you. See how high the price of butter is. If it was not for this you could not have any spread upon your bread," and then they charge you more than you ought to pay for butter, and that is the kind of philanthropy they pass out to you.

Now we have to pay six cents tax on the goods that the government doesn't get and the advocates of oleomargarine say, "Let's take the ten cent tax off; it's a burden to the people of the country." We have met

them and we said: "This adds to the cost of living and we are willing to join you in reducing that tax. You can put it down to one cent a pound if you will do just one thing—if you will leave a line of demarcation between the two products so that the consumer can see the difference and choose for himself. Are they willing to do that? No. What did we ask? We said we would let you have this law provided no oleomargarine should be made in imitation of butter. They have already given it the smell and the taste of butter, and not satisfied with that now they want the color of butter too.

They say, "We will do it up in paper and mark it so that the buyer will know the difference." How about the five hundred or thousand people a day who eat in the hotels and restaurants of a city? Do they know anything about that wrapper? Do they ever see what is printed on it?

My opinion is that their position is unfair and is untenable and that it is prompted by a fraudulent purpose which is involved at the very bottom of the whole industry and it is my judgment in all food inspection and control work that when the rights of the stomach come in contact with a commercial proposition of that kind, that the commercial advantage is the one to stand aside in the interests of the consuming public.

If that position is correct then ours is correct if we take off the 9 cents, which is all they ask to take off, and the government doesn't get the nine cents anyhow if the Internal Revenue people are correct; but we say we are willing to take it off if you are willing to leave out that color, and that is the struggle that is going on.

When our friends come here and say that this is in the interests of the consuming public, all you want to do is to ask him if they ever pay that ten cent tax and don't they make the consumer pay seven cents a pound for goods colored like butter? I should think they would want the 10-cent tax to remain there in order to furnish them the excuse to charge the seven cents more, since they don't ever pay the tax. I have heard that over and over again. You have all heard how cruel it is to the little poor school boy whose father is too poor to buy him butter for his bread and he is ashamed to have white spread on his bread when all the other children have butter. If you can buy white oleomargarine 6 cents cheaper than the colored oleomargarine it would pay that little boy's mother to buy some coloring matter and put it in at home. Then you could buy the goods for what they are.

There is another question involved. Manufacturers tell us that the white goods contain better material than the other. They say that they can't conceal inferiority when the materials are present in their natural colors, and that they can put in better materials and sell it for what it is.

I used to wonder why that 10 cent tax should come off. But here is the proposition. In oleomargarine there should be special legislation because the volume of that material made is 140,000,000 pounds a year, but we only make one pound of oleomargarine to 10 of butter, and that is made by thousands of people, and oleomargarine is made by forty people, and those forty want to market it for a fraudulent purpose. I want to say that the oleomargarine manufacturer himself doesn't sell it fraudulently: he sells it for what it is, but he does put it up in such a way that the final disposition of that product is fraudulent, a fraud can

be accomplished, and he wants to reserve that right. If there is not something in that, will you tell me why he insists upon having that color and smell and taste if it isn't so that it can be used fraudulently?

One more word and I will be done with this directly. They say, with apparent honesty, that the butter maker is afraid of competition, and they talk about this matter as if nobody was interested in this business but the oleomargarine manufacturers and the butter makers. Now of course the butter maker is interested in it, as any man has a right to be when his business is threatened, but the entire public is interested in it, and what they ought to want is competition. They say "You are afraid of competition," and the answer is "All we want is competition. We don't want rank substitutes, though." There is no competition when you take two products which are entirely different and declare the two are one and the same and put one in the place of the other. That is not competition. There is another name for it altogether different. To sell oleomargarine fairly and justly for what it is would be competition. Label them what they are and have them in their natural colors so that anybody can tell which is which and say, "Here is butter and there is oleomargarine; now take your choice." Then that is competition, because the fellow that buys it has a right and an opportunity to use his judgment, and that is what the dairymen want.

But again our friends on the other side are misrepresenting the facts and saying they are afraid of competition. The history of this product for a good many years has been along this line, and so I say that we must have special legislation, not to give one industry an advantage over another, not to discriminate, but to make sure that one doesn't take advantage over the other, and to see further that the consuming public is not imposed upon by those who seek above everything else the almighty dollar with no care of the consequences to the consuming public.

Assuming the same position that our friends take, that it is as good as butter, or, going a step farther and assuming that it is better because it will not go off flavor so quickly (which is the position they take), I still say let us have special legislation so that the fellow who wants oleomargarine may not be deceived in getting butter. The principle is the same, which ever way you put it.

President Wallis: We will listen to Mr. Jackson of Rhode Island in a discussion of this paper.

Com. F. A. Jackson: Mr. President, owing to an excess of work in the department and the short notice, I am not prepared to discuss this matter, but the Rhode Island Commissioner firmly believes in special legislation for oleomargarine.

Dr. Charles Caspari Jr.: I am glad to be able to say, Mr. President, that Maryland has a special oleomargarine law. We have had it for a number of years and we have tried to enforce it. We have been assisted in our efforts in this direction by the United States authorities, with whom we have co-operated, and several persons are now languishing in prison as a result of our enthusiasm in this direction. A few persons were fined about \$1,000 and given from one to three years in jail, which will have a very wholesome effect in the State of Maryland, I am sure.

I am a great believer in oleomargarine as such. I like it on my table far better than some lots of butter, and I am a great believer in white oleomargarine, but

I don't think we should prohibit the sale of oleomargarine, as food commissioners, simply because it is oleomargarine. I think the federal government made a mistake when they permitted the manufacturer of oleomargarine to sell it under a name that is almost identical with "butter," that is, "Butterine." That has done a lot of harm in the state of Maryland. Our state law follows the federal law, and so we have to permit it in the same manner that the federal government does. That is where the difficulty arises. It can be sold at a low price and should be continued, but the same permission granted to the oleomargarine manufacturers to sell their product as Butterine was given to the manufacturers of renovated butter, and I have heard several times that the explanation of the term "Process Butter" is that it is made by a superior process. At any rate, we compel them to put up a sign and call it "Process Butter," because if the federal government allows it, we must allow it likewise. In nearly every instance the term "renovated butter" does not appear at all, while "Process Butter" appears in very large letters.

That is allowed to be colored. Renovated butter is not very merchantable unless it is colored, as a matter of fact. It is sometimes made from white and yellow butter mixed; at other times it is made from old rancid butter. It is melted, washed, and subsequently treated with milk and rewashed and recolored.

It does seem to me we ought to be consistent. Should the dealer be allowed to color a butter which is renovated butter, made from very poor inferior grades of butter and color that article without giving notice of it? It is not fair but under the rules of the federal government it is permissible and we have to follow in the same footsteps. We have to enforce the Maryland law after the manner of the federal Food and Drugs Act and the regulations issued under it.

Com. F. A. Jackson: In regard to our experience in Rhode Island concerning the renovated butter law we just had passed in the last session of the state legislature (it became a law last May), I went before the committee and they argued that we ought to allow the word "Process" because the United States government allowed it. I had had a little experience on that in my own family. My wife ordered what she said was some very nice butter made by a new process. I told her that it would be better to buy oleomargarine than that, that it was once rancid and had been reprocessed—and so I gave that experience to the committee. I explained that people were deceived by that term, that they thought a new and improved process for churning butter was what it meant, while they did understand that "renovated" meant made over. Rhode Island insists that they shall have a sign with the letters one inch high over the tub and also that each individual package delivered to the purchaser shall be labeled "renovated butter." Dealers came before the committee and argued that it should be labeled "Processed" and I said "No." I said that those people thought by that that they were getting a new kind of processed butter, a new kind of churned butter, but that they understood what "renovated" meant.

In Rhode Island it is a custom to keep print butter, that is the creamery butter and the process butter is a tub butter—so-called. And when a customer comes in and says, "Give me two pounds of your tub butter," in a great many cases what he will be given is simply process butter.

Dr. Charles Caspari Jr.: Do you think you can enforce that in view of the fact that the United States government allows it to be called "Process Butter"? We considered that and decided we would have to admit it as processed butter.

Com. F. A. Jackson: I think you could enforce it, yes. We are doing it.

Com. James Foust: Pennsylvania has a special law for renovated butter. It costs you \$100 a year for the privilege of selling it. Renovated butter is colored but not for the purpose of selling it for something it is not. Every package that is sold must be labeled "renovated butter" so that the people who get it know they are buying renovated butter. Our law provides that articles of food shall be labeled so as not to deceive. Even though it is colored, it is butter. Oleomargarine is colored to sell it for butter. Renovated butter is still butter and there is no deception there for the reason that every package of it that is sold is labeled "renovated butter."

Hon. George L. Flanders: One word, Mr. President, in regard to the legal proposition involved here. Dr. Caspari, the national law permitting that privilege don't confine a state in its action. If your state law was in conflict with the national law it would follow, but under your police law you can enact regulations *in addition* to what the national law requires and it would stand if not conflict.

In New York we permit them to brand it either "process" or "renovated" butter.

My position in the matter of color is that it should not be used to deceive. If it came to the point that it was necessary to protect the consumer, I should say all coloring should be abandoned. I take it that the purpose of all these food laws is to protect the consumer and it is my idea that they should be enforced with that end in view.

Dr. L. F. Kebler: I would like to ask Mr. Flanders a question. I hold no brief for oleomargarine, although, like Dr. Caspari, I eat oleomargarine in preference to butter. But you took the position that the reason why special legislation should obtain in the case of oleomargarine was because it looked like butter and lent itself to substitution and fraud. Would you apply that same principle to other products? We have imitation whisky made by dilute alcohol, color and flavor and so on until very few can tell the difference. The same thing holds true with olive oils, cotton seed oil. You can make it so that no one can tell the two apart. Why not apply the same principle to those things?

Hon. George L. Flanders: It is my understanding that that same principle is intended to be applied all through the enforcement of the law, with a few exceptions, as where goods are imitations, compounds or mixtures they may be sold if they are plainly labeled to show that they are imitations, compounds or mixtures. Now it is barely possible that you may want to carry this down to say they shall not make it an imitation. You know there are times when it is difficult to determine where it is an imitation. I have heard men say that a mixture of coumarine and tonka is an imitation of vanilla extract. I know I can't prove it in court. I may not have called those ingredients by the correct name because I am not a chemist. But the principles of the food law are, first, that an imitation shall not

be made, and then if they are made they shall be labeled so that the consumer shall not be deceived. The difficulty is that when it gets to the consumer it is out of the bottle which bears the label. You have to judge a lot of these things by their physical appearance and it is that physical appearance that they want to have made in such a form that the average fellow can't tell the difference.

Dr. L. F. Kebler: Why not have a special law legislating against these imitations like oleomargarine, charging 10 cents tax?

Hon. George L. Flanders: Wherever it is necessary to protect the public I would have it passed. I would not put the 10 cent tax on it. When its advocates came demanding the tax, I raised my voice against it. I was against the 10 cent tax, but I was against allowing them to make it in such a way that it could be made to deceive the public. I am still for that line of demarcation to protect the consuming public.

Dr. Charles Caspari Jr.: Every package sold in Maryland must be labeled in letters three-fourths of an inch high "oleomargarine," no matter what the government demands, so far as the outer case, the tub, is concerned.

Hon. George L. Flanders: How about that when it goes to the table?

Dr. Charles Caspari Jr.: There is the only weak point. When it is sold in lunchrooms and so on we can't get them at all.

Mr. H. C. Lythgoe: The state of Massachusetts requires that oleomargarine shall be labeled on the outside package and lots of people object to walking out of a store with a bag in their hand with "oleomargarine" printed on it in large letters. In one store I happen to know the way they get around that. The clerk puts it in the bag marged "oleomargarine" and then hands the customer another bag which is plain, and says, "Here is an unmarked bag if you want it." The customer takes it and goes out. You can imagine that the plain bag goes on the outside.

Dr. S. J. Crumrine: I think most of us realize the necessity for eliminating the color from oleomargarine, but why should not that same principle apply to the fellow who tints his butter in imitation of good, pure butter? It seems to me we want that line of demarcation all along the line. Now Nature takes care of things pretty well, and among the animals Nature has provided that liquid melts at the temperature of the stomach. Now at certain times the butter produced is going to be yellow. But man sought to make more money by dairying than that which he could do ordinarily and so he conceived a plan of getting a food in the winter and then the natural butter which was produced would be white. But it has all the nourishing elements of yellow butter. We began by saying it was just as good and now we hear it is the same thing.

I heard once of some testimony given in Ohio where the chemist for the firm being prosecuted said that there was nothing in butter that was not in renovated butter and therefore they were identical. It reminds me of this: That a horse is an animal, a cow is an animal, and therefore a horse is a cow.

Maybe somebody will think I am getting out of my element, but I have been told in the early days they used to say there were four elements; now they have eighty or more and are substances made up of ele-

ments. In these products, I suppose, there are some elements that are alike and therefore the articles themselves are alike.

Hon. George L. Flanders: The thing is this: We want a line of demarcation between butter and oleomargarine so that the consumer shall not be deceived.

Dr. Charles Caspari: I notice that some recent work in the scientific world has shown that what we are considering "elements" can easily be changed into other elements, and so the supposition prevails that in a hundred years from now the chemist will have four elements again because they will have changed all the elements into each other.

Dr. S. J. Crumbine: I see the finish of the oleomargarine question.

President Wallis: We have about half a dozen other papers. Are you too tired to hear one more? We have a paper by Mr. Helme of Michigan. I happen to know that it is not long and that it is interesting. If there is no objection Mr. Helme will read his paper on "A Food Law Weakness: The Commissioner."

THE COMMISSIONER.

BY JAS. W. HELME,

State Dairy and Food Commissioner of Michigan.

The executive head of the department controlling foods and drugs should be a man of good executive ability, forceful and aggressive in enforcing the laws, but that forcefulness and aggressiveness should be tempered by wise discretion. He should not prosecute technical violations of the food and drug laws but should only prosecute such offenses that violate the spirit of the law as well as its letter. He should also have, if possible, knowledge of dairy, food and drug conditions obtained by a practical experience in some one or all of those subjects. He should not be appointed on the sole ground that his appointment will cancel some political debt of the appointing power. He should be retained in office just as long as he maintains a good and efficient administration of the office, and no longer. Politics is the biggest stumbling block in the way of an efficient and economical administration. In Michigan the term of commissioner is two years, and the appointment is by the governor. The term should be at least four years to begin with, and reappointment should follow if the administration of the office is a distinct success, without regard to political labels.

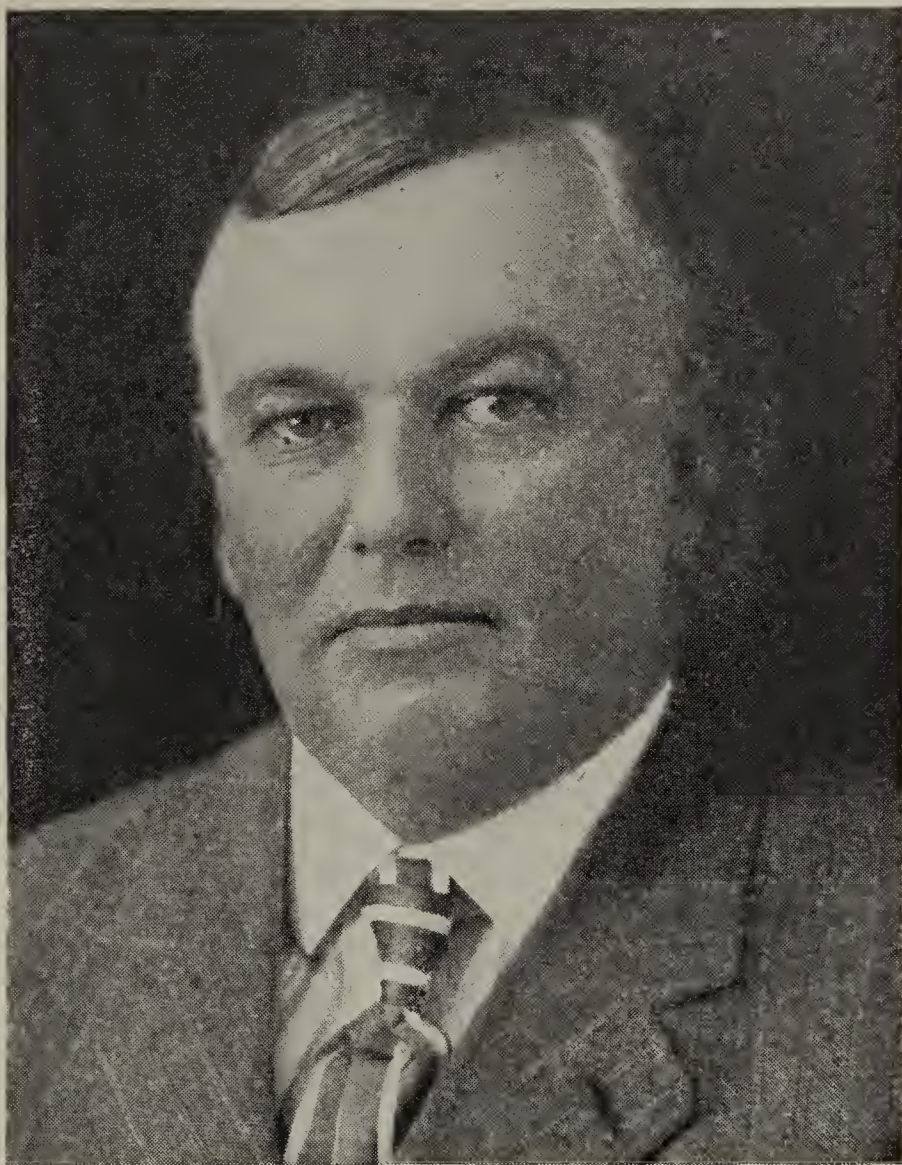
We have had a dairy and food commissioner in Michigan for twenty years and up to January 1, 1913, the political label of the governor did not change, but every time a new governor was inaugurated a new commissioner was appointed. This was followed by wholesale dismissals of competent employes to make room for the political friends of the new appointing power.

No department can be very successful with such a policy. A business house that hired its employes on the ground of their political label would be regarded as heading for the bankruptcy court. In my own case I was appointed deputy commissioner by a Republican governor because of my practical qualifications for the place, and I was appointed commissioner by a Democratic governor for the same reason. I was thus in a position to do my best for the state, unhampered by political obligations. When as commissioner I reorganized the department I retained over half of my force that I knew to be skilled and competent for the positions. In making new appointments the first object was efficiency. I found competent and efficient inspectors in all three political parties, and I appointed them when I could locate them. If a man wants to render a real efficient and lasting service to his party I know of no better way he can do so than in giving the people of the state such an efficient administration that he will command the respect and admiration of the masses of the people without regard to politics. Dispensing a few jobs to wardheelers does any party more harm than good.

Once I was a believer in appointments of inspectors by civil service, but I have changed my mind in this respect. Many men could pass an examination to be a dairy or food

inspector that would be useless in actual service. A food inspector must not only know food laws and conditions, but he must have a peculiar temperament. He must be enthusiastic in the work; he must have nerve and courage to act when action is necessary, but he must also have the judgment to know how far to go and stop there. No civil service examination will uncover these qualities or lack of them. The commissioner can only determine these by personal examination and investigation. The employe appointed by a civil service board will never feel the responsibility to make good as he will if personally appointed by the commissioner.

Lastly, I do not believe in the idea that dairy and food departments should be placed under some commission and become a side issue of some state department. It does not tend to either economy or efficiency.



MR. JAMES W. HELME, State Dairy and Food Commissioner, Michigan.

The commissioner should be an independent executive head. If he is under some commission he loses his individuality and independence to do a great work, and he is discouraged to see the credit for his work go in part to others. His work may be so interfered with by the commission, who have not his knowledge and judgment in food affairs, that he will get credit for the mistakes of other people.

It does not make for economy, which is the reason generally given for this new system. In my own case the state appropriates \$35,000 annually for our department. We have also an income from some license fees to help support the department. My fiscal year ended the first of this month. During the year we have made more inspections, more prosecutions and a better record generally than ever before in the history of the department, and I shall turn back unused into the state treasury about \$12,000 of that \$35,000, and this in spite of the fact that the last legislature put the inspection of weights and measures in our department and made no appropriation for the work. Last year I published the expenses of our traveling inspectors and challenged any merchant to make as good a showing with an equal number of their traveling salesmen. The offer was never accepted. Tell me now if you can how the department could make a more efficient or economical administration under a commission.

The dairy and food executive is, I claim, the most important

state official. He is the only official that comes in contact with every man, woman or child in the state three times a day for 365 days in the year, for he polices their food. He should fully realize and appreciate his responsibility and should so conduct his office as to gain the united and hearty good will of the public. When he can do this he need have no fear of politics. The politician always has his ear to the ground, and when he can hear the public say "Let the dairy and food department alone," the food executive need not fear political interference. And I believe every live commissioner can by hard and enthusiastic work create just such a public sentiment toward himself and his department.

President Wallis: Mr. Foust of Pennsylvania will follow with a discussion of Mr. Helme's paper.

A FOOD LAW WEAKNESS—THE COMMISSIONER.

By JAMES FOUST, PENNSYLVANIA.

Mr. President and Gentlemen:—

There can be no question that the executive charged with the enforcement of food laws and with the duty of advising the legislature upon new legislation on that subject, needs to have ready at hand a large amount of special knowledge not belonging to the equipment of the average citizen. Neither can it be doubted that the fund of such knowledge, the acquaintance with the leaders in trade and public movements, and the skill in applying such knowledge to the problems of his office, must grow with each year of active experience on the part of the food executive. If he is to start with, a man of intelligence, courage, honesty, breadth of view, industry and tact, he will be a more valuable public servant as his experience grows.

All that, however, is theory. In practice, other facts are taken into account in determining administrative policies, and, in many of our states, the food executive is considered a member of the administration, and his office is therefore regarded as political. In fact, where so many people and so large financial values are affected as by our food laws, questions of executive policy, as well as of legislation, become almost necessarily subjects of political interest. Under these conditions, an executive without political gumption would be weak, because he would lack the knowledge and skill needed to get the best results possible under the existing conditions, and would be likely to run his ship upon shoals a more skillful navigator would avoid.

But, after all, how far will our judgment upon this subject determine our tenure? What is the use of our talking very much or very loud about the matter? The people rule, and they will decide what they want.

President Wallis: Dr. Ladd of North Dakota had the other paper on that subject but I see he is not present.

Com. J. G. Winkjer: Mr. President, I wish to make a few remarks regarding the statement made by Mr. Helme regarding civil service examinations. I think he has made a mistake in that. If the civil service examination is right it will show the qualifications of the man for the place, and therefore it is not right to throw the entire principle away at one sweep, but if the methods of giving those examinations are not right, then improve the methods. We have tried it out and the civil service is serving the purpose, after it has been improved so as to fill the place it ought to fill. There are some troubles connected with it. The salaries are too low and consequently do not attract those who should come in and the people we need in the work, and so that the lists have some people on them that are not really well fitted for the work; still it works very well on the whole.

President Wallis: If there is nothing further before the convention, we will adjourn until 9:30 tomorrow morning. Don't forget the musical treat in store for us at 8:45 tomorrow morning.

Com. James Foust: How many more papers are there?

President Wallis: Five.

Com. James Foust: I would like to make the motion that all of these papers be read without any discussion at this time.

Seconded.

President Wallis: You have heard the motion. Those in favor say "aye," those opposed "no." The nos have it and we stand adjourned until tomorrow morning at 9:30 o'clock.

Adjourned until 9:30 Friday, July 17.

FRIDAY, JULY 17, 2 P. M.

Presiding: Hon. James H. Wallis, president.

President Wallis: By action taken this morning, the first order of business will be the report of the committee on resolutions. Are they ready to report? If not, the order of business will pass and we will take up the regular order. The first thing on the program will be a paper by Hon. Joel G. Winkjer of Minnesota on the "Value and Methods of Conducting so-called Pure Food Shows."

VALUE AND METHOD OF CONDUCTING SO-CALLED PURE FOOD SHOWS.

JOEL G. WINKJER.

The so-called pure food shows in the majority of cases that have come to my notice are for the purpose of advertising and exploiting the sale of an agreed number of commercially prepared foods, many of the highest type, others of doubtful value, some misbranded, others adulterated. In the case of the two last named the parties in charge are notified that the sale, giving away or advertising of such products is unlawful and must cease; the order is always obeyed and the show then becomes a legal demonstration for the introduction of the various products on exhibition to the purchasing public. This method in so far as it applies to Minnesota has for the past two years been discontinued, but was followed by the individual demonstrator exploiting a single article of food. As many as fifty demonstrators may be found daily engaged in this work in cities of 200,000 and upwards, each conducting what they proclaim a public demonstration of pure food. Their work should have careful supervision by the food officials for the reason that many of the so-called pure foods thus advertised are illegal under state and national laws.

There is another so-called pure food show that is a misnomer, a better name would be an expose of fraud. The Department of Minnesota for a number of years placed the pure food and the adulterated substitute side by side and exposed the frauds, giving the different ingredients, the cost of production of both, and such information as would enable the consumer to protect himself in a measure from the fraudulent article. Another method was to use only adulterated articles labeled as sold to the public, chemist would explain the language of the label, the commercial value of the production, and such other information as might be of interest to the purchasing public. These exhibits were shown at State Fair during the past ten years, as well as many of the larger County Fairs, that they were of value to the consumer was evidenced on many later inspection reports, that they were popular was also apparent because we were unable to meet the demand on many occasions.

Pure food shows conducted for educational purposes have a value. It is a means of expression which if effectively arranged will reach a great number of people, where written or spoken expressions would fall short.

The pure food show has in it the element of advertising for the sake of getting buyers, the food show advertises ideas for the consumer to take with them and use in their handling and selection of food products. These ideas apply at all times, whether it be at the time of the buying, the time of producing, or it be the care after the time of buying or production, the idea is always to protect the consumer from injurious foods. It is true the commercial practice involves the biggest problems, but pure food shows can be used in advertising ideas wherever the consumer's welfare is concerned.

Lessons can be learned from the commercial advertiser, and we have to use these lessons and put them into practice as far as possible, for not only is it the fact that food commissions are lacking the means of engaging the high priced

advertising, but advertisers have not bent their mind towards any other line than for profit. In any event it is only left for the commission to develop this line from whatever talent there is in the force. It may therefore not be amiss to discuss some of the phases of this side of the subject.

The people that see a pure food show are not inclined to give deep and profound study to any matter at places where pure food shows are held. At fairs they are usually in a hurry and any exhibit should express the idea very quickly and forcibly, so that in passing a person can comprehend what is meant. One of the strongest things that can be given for an example in this line is the exhibit used by health officers. It consists of an electric light that is automatically turned on and off at proper intervals. A few short words tell that as often as the light goes out a life is lost from tuberculosis. The illustration is so quickly comprehended and so appalling, that the spectator will have it indelibly impressed on his mind.

A form of exhibit commonly used is the adulterated, misbranded and injurious foods taken from the shelves of stores as offered for sale to the consumer. This method of exhibiting, although it has its merits, has also a very undesirable side in that frequently the manufacturer of these goods is wrongfully advertised as a violator of the law although, since the enactment of the pure food laws, he may have been acting in strict accordance with the law. Shows of this kind are likely to become so complex and to have such a conglomeration of exhibits that they fail to leave any impression worth carrying away. It appears to be a better way, as already mentioned, to get some form of exhibit that will forcibly illustrate the adulterations and the particular kind of harm they do. This is not liable to cause injustice to a manufacturer who lives up to the requirements of the law.

Strong contrasts can be used. At one show a cow stall was prepared with all the faults sometimes found, and right beside it was a reproduction of the same stall with some touches here and there which placed it in a sanitary condition. This idea has also been followed out in showing up a grocery store, by placing the undesirable and the improved conditions side by side. Various arrangements can be made for showing contrasts in the different kinds of food products. Pictures can be used to good advantage but in all cases the simple, forcible way of expression is the one that has the greatest effect in the pure food show. Our experience is that occasionally a person visits these pure food shows who wants to go into the details. In such cases the attendant should be able to discuss the questions intelligently, or pamphlets of information on anticipated questions could be prepared and handed out.

Pure food shows can always be used in a campaign for better food products and will reach farther than simply calling attention to pure foods. They can be carried into an educational campaign, to teach the people the real value and nourishing qualities of foods. There is room for much improvement in this line of work, and the subject is worthy of skillful artisans. But precaution should be used in making these pure food shows part of commercial shows that have for their object to advertise a few lines of goods, sometimes done to drive away other foods just as wholesome and desirable.

President Wallis: Any discussion on that paper? Dr. Dowling and Prof. Jaffa were appointed to speak on this subject but neither of those gentlemen are here so that the discussion is thrown open.

If there isn't anything on that we will proceed to the paper by Mr. John B. Newman of Illinois.

RELATION OF THE DAIRY AND FOOD DEPARTMENT TO THE MUNICIPAL MILK SUPPLY.

JOHN B. NEWMAN.

It strikes me quite forcibly that the dairy and food departments have here a field of work that requires their best efforts in another line than that generally pursued with the manufacturers or producers of food products. With them our relations are more of control and policing, watching the sanitary production and handling as well as the ingredients that enter into the goods offered for sale.

We have all been busy endeavoring to secure a more sanitary production and handling of milk by the farmer, more

sanitary methods of handling and transportation by the dealer and the more sanitary handling by the consumer.

We have all spent a good deal of time, energy and money in showing the farmer how to produce a more sanitary milk supply; we have inspectors continuously in the field visiting the dairies; we have sent the dairyman an enormous amount of literature on the subject; we have spent days and nights traveling around the State, lecturing to them at dairymen's meetings; we have been very ready to insist upon more sanitary equipment of stables, entirely different methods of handling the milk, which has necessitated an increased cost.

We have been slow to investigate the added cost of this new equipment and better methods; we have listened continuously and responded liberally to the complaints of the consumer about the milk that we are receiving but what have we been doing besides listening to his complaints? This



MR. JOHN NEWMAN, Assistant Food Commissioner, Illinois.

brings me to the point that I have in mind on this subject, that I think it is the duty of the dairy and food department, as one of its relations to the municipal milk supply, to be an educator or an instructor to the consumer regarding this most wholesome article.

I will not waste any of your time in discussing the relative food value of milk and other foods; it is too well known to you all, and we are going to start off with the assumption that with the exception of flour, cornmeal and navy beans, it is very much cheaper than the other articles that enter into the food supply of the ordinary family.

It seems strange that the consumer in whose interest a great deal of this effort for better production has been made, and who has been quite liberal with his complaints, should not take more of a personal interest in this great food.

It seems only right and proper to me that our department should be made an educational bureau for the education of the consumer, that he may know more about and better appreciate the value of milk. We should give the same amount of time and spend the same amount of money in getting out literature to them; we should give up as many days and nights traveling around lecturing to them as we have been doing toward the production end.

It should not be difficult to make the consumer see and understand that when the farmer spends a great deal of money in better equipping his place, spends more money for cows, help and feed, that the milk necessarily costs more. Neither should it be difficult to make the consumer understand and appreciate that milk is a most economical food—it is all available for food purposes; there is no waste, no bone to be cut out or trimmings to be thrown away, no leaves or husks or shells that you pay for but cannot use. Again, there is no expense in preparing it, the greater per cent of it being consumed raw.

Although the price of feed fluctuates and the supply of milk fluctuates, the price to the consumer does not fluctuate. The consumer will stand a raise of from 5 to 6 cents a pound on his meat supply; he will pay from 50 to 100 per cent more at different seasons of the year for fruit and vegetables, for delicacies and desserts, but if the price of milk is raised one cent a quart, a howl goes up and you hear a vigorous objection all along the line. When the grocer, butcher, baker or any other food handler is put to additional expense, either of equipment or method, the consumer has the privilege of sharing this added expense. Up to the present time this has not been so in relation to the dairyman.

A few words about the cost of production. I think it is fair to assume that the bulk of the market milk sold brings the farmer about three and one-half cents per quart, and this three and one-half cents per quart is below the cost of production; the price to the consumer the country over is about seven and one-half cents.

Bulletin No. 99 issued by the Market Milk Division of the Bureau of Animal Industry, shows that the increased cost for labor per month on the farms in the United States increased from 13.48 in 1891 to 20.01 in 1909, an increase of 48 per cent in the 18 years—and I believe the average at the present time would be nearer \$30 per month than \$20.

Another bulletin, No. 94, shows the increase in the price of feeds in these same years as follows: Corn increased from 32½ cents a bushel to 61.8 cents a bushel, or 79 per cent. Wheat increased from 65.4 to 87.4, or 34 per cent. Oats increased from 27.8 to 45 cents, an increase of 62 per cent. Hay increased from 7.62 to 14.64, or 92 per cent. There is more hay and corn fed than there are oats and wheat, the rate of increase in corn and hay being 79 and 92 per cent, respectively.

The country over the producer is receiving about 33 per cent more for his milk than he was in 1890. The cost of production has increased about 66 per cent.

Bulletin No. 45 from the Massachusetts Experimental Station gives some figures, placing the average yearly food cost per cow at \$90.04; the other charges, \$56; total per cow, \$146.04. The average yearly yield of these cows was 6,036 pounds, or 2,383 quarts, which shows a cost per hundred of \$2.42, the cost per quart of 5.45 cents. In their conclusions, they say with a herd producing 6,500 pounds of milk of 5 per cent fat test, the milk cannot be produced for less than 5½ cents per quart. The farmer is not getting this price for his milk at the farm, and they say in their bulletin that a campaign of education is needed to convince the public of the superior nutritive value of milk. That is our proposition exactly; the public should be better acquainted with its value then it would be more ready to pay a fair price for it.

An extract from records of some experiments carried on at the New Jersey Experimental Station on 31 head of mixed milk cows, summarizes as follows: Based on actual cost of growing and harvesting the products consumed, and of labor, the total cost of feed, labor, etc., for the year, was \$165.95 per cow. Based on market valuations of feed consumed, \$191.82. The yield of the cows averaged 8,661 pounds. The total cost per quart of milk will be in the first case, 4.16, and in the second case, 4.80. No credit is given the cow for the manure voided or the calf produced, neither is the farmer's time charged for. Valuing the manure at \$20 per cow and the grade calves at \$6 each, the cost of producing 4 per cent milk, even with the high yields reported and exclusive supervision, was approximately 4 cents per quart.

I am going to quote some very interesting figures that will soon be released in the form of a bulletin by the Agricultural Experiment Station at the University of Illinois. This bulletin is worked out on what is called the "Labor Income Basis," and the labor income is the amount the farmer has after paying all his expenses, such as taxes, interest, insurance, repairs and labor. It does not, however, include the personal expenses such as groceries, clothing, etc., which go to the physical or mental comfort. Of course, it includes the feed, etc.

A survey was made in the famous Elgin district, in seven townships in northern Illinois, four townships in Kane County and three in McHenry County. This milk was sold mostly for Chicago municipal supply or for condensing purposes, and it was marketed on what you would call a first class market. There were 317 owners visited in these seven townships, and the average labor income of the 317 was as follows:

Average labor income of 317 owners.....	\$ 549
Highest labor income.....	5,602
3 Owners made over.....	5,000
4 Owners made over.....	4,000
8 Owners made over.....	3,000
20 Owners made over.....	2,000
80 Owners made over.....	1,000
126 Owners made over.....	500
1 Man lost.....	1,716
2 Owners lost over.....	1,500
10 Owners lost over.....	1,000
20 Owners lost over.....	500
225 Owners made plus labor incomes.	
92 Owners made minus labor incomes.	

Relation of production per cow to labor income, 263 owners.

Production.	Number.	Labor Income.
2,000-3,000	12	—\$ 184 loss
3,000-4,000	34	+ 50
4,000-5,000	63	494
5,000-6,000	63	526
6,000-7,000	64	808
7,000-8,000	20	1,217
8,000-9,000	5	1,324
Over 9,000	2	2,000
Average	263	\$ 572

Bulletin 164 of the Bureau of Animal Industry speaking of some herd records said as follows:

"When results of this census were compiled, it was calculated that the food consumed by the 5,507 head if sold in the local market at the local prices would have brought nearly \$25,000 more than what the cows produced, including milk, cream, cheese, butter, skimmilk, calves and skin, or \$4.50 per cow loss on the selling of the grain in this manner, saying nothing of all the other expenses."

And in Bulletin 75 of the same department they say the average production of dairy cows in this country is hardly at the profit line of the feed cost alone.

Bulletin No. 226 of the Agricultural Experiment Station, University of Wisconsin, after speaking about some tests, says that the average net return over the feed cost alone on 395 cows was \$62.85. Figuring \$65 as the other expenses above the cost of feed, and you show a loss.

Bulletin No. 73, Connecticut Agricultural Experiment Station, on the cost of milk production, figures out a fixed charge above the cost of feed of \$65 per year per cow, as follows:

Bedding	\$ 5.00
Keep of bull per cow.....	5.00
Labor	33.60
Interest on money invested on cows and barn..	6.75
Taxes on same.....	1.25
Insurance on barn.....	.40
Depreciation on cows.....	13.00
Medicine, light and heat.....	2.00
Total	\$65.00

Cost of feed for five years was as follows:

1906-1907	\$72.85
1907-1908	77.08
1908-1909	87.55
1909-1910	87.49
1910-1911	95.37

This give a five year average of \$84.07 as feed cost, plus the \$65 as other charges, makes \$149.07. There should be a

credit here of \$10 per cow for manure on the field and for the calf. And their conclusions are as follows:

1. Figuring the milk at 4 cents per quart at the farmer's dairy house gave a net loss every year.

2. Figuring the milk at 5 cents per quart at the farmer's dairy house gave a net profit every year but one.

3. Figuring the butter at 30 cents per pound at the dairy gave a net loss every year.

4. It required \$65 on the average above cost of feed to maintain each cow one year.

5. The value of the manure at the barn from one cow for one year is not more than one-sixth as much as the cost of her maintenance above cost of feed.

6. Increasing the average yield of the herd does not greatly reduce the cost of milk production. Although better yields are obtained as a result of improving stock, increase in feed and more skillful management, these together cost enough to make it impossible for us to produce milk at a profit for 4 cents per quart even with a good herd.

Let us take the figures on the record cow as shown in Bulletin 226 of the Wisconsin Experimental Station. This was the record amongst 395: She produced 21,972 pounds of milk; 888.15 pounds of fat; allowing 28 cents a pound for fat and 20 cents a hundred for skimmed milk, this cow's product brought \$283.84; her feed cost was \$129.40, leaving \$154.44 above the feed cost. Figuring all the other costs on such a cow as \$90, you have a profit of \$64.40. This cow was milked for 365 days a year. The average cow of Wisconsin was 170 pounds of butter fat, a little less than one-fifth of what this cow gave. The average net return over the feed cost alone on the entire 395 cows in the record was \$62.85. If you figure the other expenses at \$65 you have a loss.

Circular 118 issued by the Agricultural Experiment Station of the University of Illinois covers the records of 554 cows in 36 Illinois herds. Returns on the poorest one-quarter of the test show a gross return of \$30.77; the feed was figured at \$30 for this poorest one-fourth, leaving 77 cents for the calf and manure to cover all the other expenses. The best one-fourth gave an income of \$69.32; the feed for these was figured at \$38 a cow, leaving \$31.32 for the skimmed milk, calf and manure for the other expenses.

We have had to argue with them that they should be better managers; that they should meet this increase by more efficient methods which would reduce the cost of production, and they have just about reached the limit on this cost of production proposition. And, gentlemen, when you stop to figure what the farmer has been getting out of it, you will find that "getting out of it" means here that he has been getting nothing out of his labor. He has been putting in his time and labor and the labor of his family in exchange for a bare living; he has been increasing the fertility of his soil so that he might grow larger crops, to feed more cows to produce more manure, to get more fertility to grow larger crops, to feed more cows to get more manure, and right around again. Incidentally, he has had to hire more help at three times the expense to care for this increased amount of milk in compliance with our sanitary regulations. He hasn't made a dollar. He has contributed this increased fertility of his soil, the extra milk from this larger number of cows, the possible field labor from this increased number of help; he has contributed this added cost, I say, to you and me as consumers of milk that we may get this milk in a more wholesome and sanitary manner without added cost. And what are you and I and the consumer doing to make this a profitable business to the dairyman? For unless we do make it profitable the good dairyman will go out of the game and the consumer will have to pay a higher price for even the milk that is produced by the insanitary dairyman, and it strikes me as though health would be better preserved and disease prevented, and much more would be accomplished were they to pay the increased price for the wholesome milk produced by the sanitary and progressive dairyman, than an increased price for milk from an ordinary or insanitary dairy. In discussing this with one well-posted gentleman connected with one of our agricultural colleges in the West, he replied as follows: "If you raise the price of milk, the farmer feeds a little better and works a little harder; the increased feed that he uses and the extra work eat up the higher price of the milk. If the price goes down, he buys cheaper feed, carries fewer cows, hires less help and will grow a crop that he can market direct rather than as feed for his cattle. It means no extra profit to him. Fluctuations of 15 cents a hundred are not conducive to a healthy growth, at least, of a sanitary milk supply. The figures that I have here that go to prove the farmer is not receiving enough for his milk are reliable, as you will see by these references.

Comparing the food value of a quart of milk to other foods mentioned here justifies me in taking the position I have that the consumer should receive at least the same amount of attention from our department as does the producer; that for every bulletin issued and every day spent toward the more sanitary production of milk there should be a bulletin issued and a day sheet acquainting the consumer with the food value of this great food. Personally, I am more fearful that the farmer will produce sanitary milk at a loss than I am that the consumer will ever pay more than it is worth. The loser in this deal should not be the same one all the while. I am very frank to say that I think he has been and is at the present minute.

The Illinois State Food Department some time ago issued a bulletin on the "Nutritive Value of Foods" and at every opportunity we have we put on a display in bottles with the quart of whole milk as a basis surrounded by containers of other ordinary foods, giving the amount and the cost of that amount necessary to supply you with the caloric value of a quart of milk, and we intend to carry on this work.

We have co-operated with other departments in our State, the Agricultural Department of our State University in particular, and also with the Illinois State Dairymen's Association to an increased yield per cow. The dairymen have responded nobly in our State; they have taken a chance, they have bought registered stock, cows of known record; they have gone on doing this within the last month; four producers in Northern Illinois clubbed together and paid \$20,000 for a young Holstein bull to head their herds, in an effort to raise heifers of an increased milk capacity. The bull's dam was a record milk-producing cow.

Before I close, I wish to say that I think it is entirely wrong to do so much figuring with simply the cost of feed. I also think it is wrong to figure the feed at farm cost. If we are going to encourage the farmer to keep books and keep an exact record, he should figure in his feed that is raised on the farm at the market price at the nearest station, charging against it the cost of delivering to the station.

I believe that milk is the only article of food being supplied to the consumer, regardless of its food value, that in most cases involves a loss to the producer, and in the other cases a mighty small profit. With the exception of the few consumers that are paying 15 cents a quart for certified milk, we see nobody on the consumer's side showing any interest in the matter. We wish to encourage the production of certified milk; it has a good moral effect upon the whole milk production and it arouses public interest on the milk question. So in conclusion let me repeat that I think it should be our duty to see that the consumer understands the situation and stand right up and defend your ground, not be backed off by those who are always clamoring about increased cost. Be the big brother to the milk producer and see that the product he makes is appreciated by those in whose behalf so much has been spent without either appreciation or adequate return.

Com. James Foust: I move that we go to the hearing of the report of the resolutions committee and the election of officers.

President Wallis: They don't seem ready to report. Mr. Foust. Dr. Richardson of Massachusetts has the discussion on this paper.

Mr. H. C. Lythgoe of Mass.: In the absence of Dr. Richardson I would ask permission of the Chair to discuss this paper. I have had an opportunity to read it and would like to say a few words on it. It has been a well known and well advertised fact in the East that the farmer has not been getting the proper price for his milk. The paper of Mr. Newman emphasizes the fact and supplies a valuable compilation of statistics which shows that the farmer is selling milk in many instances without adequate returns for his investment. We have been constantly demanding from the dairy farmer, the expenditure of a larger sum of money in milk production without a proportional rise in the selling price. If we consider the increased price of grain and of labor it is evident that the farmer is getting the worst of the deal. When the farmer succeeds in getting more money for his milk his increase is measured in cents per can, but this increase is passed on to the consumer

in terms of one per cent per quart. Naturally the consumer objects to the producer's increase being multiplied by four or eight when passed on to him and I believe that the consumer would not object to an increase of one cent per quart if the farmer was reimbursed to the same extent.

The farmer has not been getting his share of the money for the sale of most of his crops. It has been said that the American farmer has not been a farmer but a miner and has sold the mineral matter in his soil for the cost of getting it out, making no charge for the value of the potash and phosphoric acid removed from his farm.

If we are to have clean and pure milk, the farmer must get more money and the public must pay a higher price. As long as the distribution of milk is in the hands of others than the producers, both the producer and the consumer will be at a disadvantage. I believe it possible, however, for farmers to market



MR. B. H. RAWL, Chief of Dairy Division,
Department of Agriculture.

their own milk through the medium of co-operation. This will require considerable money but the farmers could easily raise it if the distribution of their product were carried out by men of recognized ability and financial standing in the community. Under these conditions farmers would have the confidence of the public and the public would be willing to pay a reasonable price for a good article.

President Wallis: I believe that is all the discussion on that paper. I am going to suggest that we hear Dr. Crumbine on "Editing Questions and Answers" before we take up any other business.

THE ANSWERS TO QUESTIONNAIRE, WITH EDITORIAL ARRANGEMENT AND COMMENT.

By S. J. CRUMBINE, M. D.

Secy. Kansas State Board of Health.

The plan originated by our honored president in submitting a questionnaire to the food and drug control officials on vital topics of interest to the commissioners, tabulating and editing the same for presentation at the annual convention was sufficiently interesting and instructive to warrant a repetition of the same. Accordingly, I was requested by the program committee to send out such a questionnaire, and I herewith present the tabulated result of the answers received to the same:

Replies from only 30 commissioners were received, and it is assumed by the editor that those not replying considered the matter of so slight importance as to be not worth their while to answer the communication. Whether or not this interpretation of their silence is true, it is believed that the commissioners who refuse or neglect to answer a courteous communication from other commissioners, or to share in the program of the annual conventions, of which this is a part, are derelict in the high privilege they have of adding their fund of information to the solution of the many vexatious problems that confront us in food and drug control.

Question 1 reads: "Should the entire guarantee clause on labels be abolished, including the Serial Number?"

The questionnaire was formulated and sent out for replies before the Bureau of Chemistry took action toward the abolishment of the guarantee serial number, so that the replies received to this question are chiefly of historic value. It may be of interest, however, to note that of the 30 replies received all were in favor of abolishing the guarantee legend, with but one exception, and this official was in favor of "perfecting" instead of "abolishing" the same, expressing his belief that the present guarantee clause was misleading; this official was in favor of retaining the serial number, while the remainder of the replies favored abolishing the serial number together with the guarantee clause. It would seem, therefore, that Doctor Alsberg has practically the united support of the food and drug control officials in the action already taken in abolishing what, in the editor's opinion, so far as the meaning to the ultimate consumer is concerned, had grown to be one of the most grossly misleading statements upon the labels containing the guarantee legend.

Question 2: "Should the sale of diluted pure vinegar be permitted? If so, how labeled?"

Of the 30 replies 14 answered "No," and of this number one stated that the vinegars diluted should be plainly labeled "imitation"; two stated "No, unless sold in original packages"; two others that "The consumer should not be obliged to pay freight on water shipments and barreling of thousands of added gallons of water"; the remainder of the 14 wrote: "Emphatically No."

To these 14 might be added the opinion of the essayist.

Thirteen of the replies answered, "Yes, providing the diluted pure vinegars are properly labeled as to the kind of substance which is used to dilute them." Out of these 13 two stated, "that these diluted vinegars must be of the present legal standard."

The above replies would seem to indicate that the vinegar question is far from being permanently settled, and it is the judgment of the editor that a committee of the association should be appointed for the express purpose of working out some uniform, common ground upon which, if possible, all food and drug officials may unite in their opinions concerning the question herewith submitted and all related questions of the vinegar problem.

Ques. 3—"Should homogenized dairy products be labeled what they are?"

All 30 answers to this question were in the affirmative, but a provision is made in each answer that "the labels tell the truth as to the character of the substances used." One official added his objection "that allowing homogenized dairy products opened the door to deception."

It occurs to the editor at this time that the question was unfortunately stated. The question should have read: "Should the homogenizer be permitted in the manipulation of dairy products?" "If so, how should such products be labeled?" It is thought that the answers submitted would, perhaps, have been of a different character.

Ques. 4—"Should a mixture of skimmed milk and cream equal to the milk standard be sold as such?"

Fourteen officials answered, "Yes." Of this number, one

made a proviso that such a mixture should be labeled "Manipulated Milk." Another was in favor of a statement upon the label indicating the change created in the milk by such manipulation. Another made the provision, "If not used fraudulently." The remainder declared in favor of the proviso that the "label told the truth and showed the character of the mixture." Twelve officials answered "No"; one of these said, "That there was nothing gained by so doing"; another official was "not in favor unless the mixture was labeled." One declared, "Such practices would open the door to deception"; another that, "It afforded an opportunity for fraud." Two were not in favor "Unless such mixture was sold under a distinctive and designated name." The remainder were "Not in favor under any consideration," to which number might be added the opinion of the editor.

The answers to this question would seem to indicate that the opinions of the commissioners were quite as far from being unanimous as those expressed on the vinegar problem, and suggests the necessity of further consideration of this subject.

Ques. 5—"What are the best sanitary regulations for country produced milk?"

The answers to this question would seem to indicate a divergence of opinion as to the intention of the question, but the replies were all of such character as to show that the sanitary conditions under which milk is produced is of the very greatest importance. Many thought that "clean barns" was of the chief importance. Others emphasized the necessity of "the proper care of the milk by rapid cooling to a temperature of 50 deg. Fah. or below, this temperature to be maintained until delivered to the consumer." Others emphasized "Clean hands and clean udders," while still others, and the editor regrets that they were in the minority, emphasized "the health of the employes and the health of the cows." The answer of the commissioner of Minnesota is noteworthy in that a constructive program for betterment is suggested. He writes: "Dairy barns on the farm should be as well constructed as city dairy barns; as an encouragement to bring up the farm dairy conditions, a city brand for butter and cheese was provided for by the 1913 legislature, and one of the requirements for the use of this brand is that the dairies come up to a certain standard." It is the opinion of the editor that herein is a powerful lever to improve country produced milk and other dairy products.

North Dakota also offers a constructive suggestion in the following answer: "Parties supplying milk should be registered, furnished with printed information as to the care and handling of milk and dairy products, and inspectors, as far as possible, should visit each place, examine into sanitary conditions, etc.; the general health of the persons employed in the work should be examined into and record of the same be published; frequent examination of samples of milk for the presence of dirt and bacterial content should be made."

It is the belief of the editor that greater stress should be placed upon the health of those handling milk products, together with the health of the cattle. Milk contains two kinds of contamination, one of a benign sort which is entirely harmless, the other of the kind containing pathogenic organisms capable of producing serious illness, if not death. To prevent the latter possibility, frequent examination of the health of the employes and of the cattle are essential.

Ques. 6—"Should we be required to wait to hear from Washington before making seizures?"

Eighteen officials answered "No"; three answered "Yes"; three did not care to answer the question, and two would "leave the question to the Government to decide."

Ques. 7—"What are you doing to develop food industries in your state?"

The nature of the answers to this question are of a character which make it difficult to classify, and they are, therefore, herewith presented as given, for your information.

Arizona: "Development of the dairy industry by starting an educational campaign."

California: "In California we are striving to protect the honest manufacturer and in that way develop the food industry by enforcing the Food and Drugs Act and prosecuting those guilty of adulteration, misbranding and mislabeling."

District of Columbia: "Practically nothing since the District of Columbia is not and probably never will be a producing or manufacturing center."

Hawaii: "We are attempting to place all industries on a sanitary basis by proper regulations."

Idaho: "Much attention is being given to the development of the dairy industry; raising and canning of fruits and vegetables, and bottling of mineral waters."

Indiana: "Doing a great deal, especially in the development

of the canning industry. Work responsible for large number of such up-to-date industries. Recently sent to canners of state specifications for the construction of sanitary toilets and dressing rooms. The development of this industry but one phase of endeavors."

Kentucky: "Devoting one-half to three-quarters of the time of the food department towards the development of dairies, bakeries, groceries, food factories and other plants, up to the sanitary efficiency required under the law, and devoting considerable attention towards the development referred to in the question."

Alabama: "Quite a number of home canning plants have been established in our state lately."

Colorado: "Third month in office, and so far I have no plans whatever for developing food industry in the state."

Florida: "We have very few food factories in this state."

Georgia: "By enforcement and by educational means to develop all legitimate food industries of the state."

Iowa: "Establishing single standards. Also devoting much time to educational work among producers."

Maine: "Very little."

Mississippi: "Very little has been accomplished along this line."

New York: "Enforcing the statutes passed by our legislature against the fraudulent sales of food products."

North Dakota: "The Department assists in every way possible those who are interested in developing food industries by furnishing them with information, making for them tests, and even carrying on lines of experimental work."

Oklahoma: "A degree of leniency is extended Oklahoma more so than all others."

South Dakota: "Am endeavoring to improve and increase the egg production in the state."

Washington: "Recommending the use of home manufactured goods when properly made."

Wisconsin: "Enforcing the food laws."

Minnesota: "Between 600 and 700 creameries (co-operative) with addition of 250 creameries owned by private individuals or corporations, 70 or more cheese factories, 25 factories which pack corn, peas, beans and other vegetables. Many of these the direct result of educational development, backed by expert inspectors, whose duty it is to aid and instruct persons engaged in these industries. This does not include agricultural colleges, experiment stations and agricultural schools."

Nevada: "At the present time we are gathering data for a food manufacturing concern, setting forth the advantages and possibilities of erecting a plant in this section."

Ohio: "Rigid enforcement of sanitary regulations and elimination of unfair competition by enforcement of adulteration, misbranding and short-weighting sections."

Oregon: "Preaching pure food. Standing square to the line wherever I believe reforms are needed."

Pennsylvania (Food and Dairy Dept.): "Our law in no way deals with food industries."

Rhode Island: "Nothing."

Tennessee: "Development of the dairy industry, where we give as much advice as possible, and are as lenient as possible in enforcing requirements. Regular fostering of food industries of this state does not seem to be any part of the duties of this department."

Ques. 8—"What one sanitary reform in the handling of food products is most urgently needed? Your remedy?"

Five officials mentioned the necessity of properly protecting, if possible, from flies, street dust, etc., by proper cover; four officials declared their states urgently in need of a sanitary inspection law to supplement the food and drug law; five others seemed to think that the handling of meat products and the control of country slaughter-houses was of the chiefest importance; three were of the opinion that the physical examination of employes handling food supplies was the greatest sanitary reform now needed; three urged that educational campaigns were needed and were the only remedy for the insanitary handling of food products. One of these officials says: "Education as regards the personal responsibility of parties handling and preparing food stuffs is needed"; another declared, "No one sanitary reform, but the teaching of this subject in the public schools is needed"; another expressing the same thought in a different way says: "We need an awakened public conscience"; one official is of the opinion that the reform most urgently needed is "the proper cleansing of soda-water glasses"; another official answered by saying that "The retail storekeeper needs reform in the handling and caring for food supplies, as well as by purchasing cautiously, so that stocks do not deteriorate"—he believes that legislation is needed along this line; one stated that "the several states should keep the U. S. government informed

as to the sanitary condition of food establishments in the state of those doing an interstate business"; one official declared that "this question was impossible of either intelligent answer or special application"; this same official in answering the milk question referred the editor to the government score card. Now the editor was not seeking for personal information, but was endeavoring to get the views of the various commissioners for the purpose of presenting them at the conference. Another commissioner believes that "the most urgent sanitary question before food officials is the milk question."

The editor desires to add his opinion to the three who expressed themselves that the physical examination of employes handling food products was the most urgent sanitary reform needed, although he is willing to confess that in all probability it will be the last sanitary reform to be put into execution.

Ques. 9—"Would it be advisable to have a board or commission of five, seven or nine members to serve with the commissioner of foods and drugs in formulating the rules, and policies of the department, such men to be appointed by the Governor and selected from the various business interests under inspection? Why?"

Twenty-one of the replies received answered "No," and it is of sufficient importance to tabulate the majority of these answers in full, as they express a reason for the faith that is in them. "Emphatically No," answered one, "a committee has been defined as a body of men gathered together to do in three times the time what one man could easily do alone,—it is human nature to see things according to one's own interest"; another answers, "No, not desirable"; a third answers, "While very helpful in carrying out the work of the department, I am inclined to believe that a high-class official, trained to efficiency, should be turned loose on the job with as little restriction as possible"; a fourth declares, "I am opposed to a board of five, seven or 9,—the commissioner is charged with the enforcement of the food laws enacted from time to time, and he should not be hampered with a board or commission; he can get all the information and more in various ways than he could from such a body." A fifth answers, "It would be a great mistake—we want the majority in control professional men—a commissioner to formulate his own rules and policies of the department—business is able to take care of itself." A sixth reply reads: "Not desirable—policies of one board would change with change of personnel; questions of great importance would be delayed." A seventh, "No, business interests should not be permitted to formulate rules and policies which have a direct bearing upon their personal affairs; policies are indefinite, and not infrequently spell 'politics,' therefore 'favoritism'."

An eighth reply reads: "If there is any one thing that is essential to the success of inspection work, it is unity and continuity of purpose, which would be better secured by having matters in the hands of the food commissioner."

Answer nine reads: "No, I believe the best method for accomplishing this result is through special conferences of food executives, such as was held at Washington, D. C., last November."

Ten, "No, would result in strife."

Eleven, "Too many cooks spoil the broth."

Twelve, "Emphatically No."

Thirteen answered, "No, just a commissioner and his associates."

Fourteen, "Too cumbersome."

Fifteen, "Do not favor."

Sixteen, "Emphatically No."

Seventeen, "Opens the avenue for political interference, and would be an embarrassment and impediment."

Eighteen, "No, divided responsibility makes the wheels of progress move slowly, if it does not produce a conflict which stops them altogether."

Nineteen, "Let the commissioner assume the responsibility—let him be held responsible and give him a free hand."

Twenty, "A commission constituted as suggested in the question would almost certainly handicap the work."

Twenty-first, "Unquestionably such a board would be unwieldy, and would lead to very many unpleasant entanglements with the business interests represented."

Six answered "Yes," with the following conditions: "Yes, for a commission, but no business interests, only in an advisory way"; this answer should be added to those answered in the negative, as the conditions stated in the question are not those conditioned in the answer.

A second says, "A small board appointed by the Governor."

A third says, "A board of five," without further explanations.

A fourth says, "For the purpose of getting new viewpoints—should be advisory only."

A fifth, "Such a commission would be desirable provided it might be divorced from all political influences."

A sixth, "A commission of not more than five."

A tabulation of the six questions apparently answered in the affirmative would, as a matter of fact, leave but three that are in favor of the question as submitted. An overwhelming majority of the commissioners not only answered the question in the negative, but their answers were of a protesting character, and very emphatic in nature in expressing their disapproval of such a plan. This question was submitted for the opinion of the commissioners because of the belief that precisely such a movement would be undertaken by certain food and drug interests that are chafing under the present laws, rules and regulations that are being enforced for food and drug control. A determined effort was made in the last Kansas Legislature to reorganize the State Board of Health, a majority of the board to be appointed by the Governor from the business men representing the various interests under inspection. The bill actually passed the Senate, but the members in the House, fortunately, saw the ulterior motives of the sponsors of the bill, whereupon its defeat was accomplished.

When the various state governments will designate the Presidents of railroads and telephone and telegraph lines as the proper parties to be selected as members of the Boards of State Public Utilities, when the State Superintendent of Insurance shall be named from the general managers of the insurance companies, when the requirements for the appointment of a State Inspector of Mines shall be that he be a mine owner, then it will be appropriate to inaugurate the policy that those who shall have the enforcement of the food and drugs act and the framing of policies for its enforcement, shall be selected from the interests under inspection. Commissioners are warned to "keep their weather eye on the offing" for the detection of this small black war cloud which threatens the integrity of state food and drug laws.

Ques. 10—What one amendment to the national food and drug act is most urgently needed? Why?"

The answers to this question are of such a character as to be impossible to tabulate by numbers, and they are, therefore, given separately for the information of the association:

Alabama: "The elimination of the authority for substandard drugs."

Arizona: "One forbidding the use of preservatives and colors."

California: "In my opinion, what is most urgently needed with reference to the National Food and Drugs Act, are standards. This may not be considered as an amendment, but it is certainly considered important."

Colorado: "(a) An amendment authorizing extensive sanitary inspection of foods entering into inter-state commerce, and extending the definition of 'adulteration' to include foods manufactured, prepared, stored or transported under insanitary conditions.

"(b) Because such an amendment affords a practical, immediate and effective remedy from the evils which result from the use of unfit material in the manufacture of food products, will have a tendency to raise the standard of prepared foods and reduce to a minimum the use of chemical preservatives, bleaching compounds, and other so-called poisonous substances."

District of Columbia: "An amendment which will embody proper legal standards for both food and drugs to supersede Circular 19, 'Standards of Purity for Food Products,' is most urgently needed. This is suggested for the reason that in cases now based upon the standards as outlined in said circular, the standard must be defended and established by a preponderance of testimony in order that it may be upheld by the court."

Florida: "The removal of the proviso allowing dilute standard drugs to be sold, under the names of 'standard drugs.'" "An amendment preventing the false advertisement as to the quality of foods, or the therapeutic effect of medicines, in newspapers or pamphlets, as well as on the label."

Hawaii: "Some legislation that would, if possible, give comprehensive national control of the manufacture, importation, sale and use of habit-forming drugs."

Idaho: "Amendment protecting the food products from insanitary conditions, either in its manufacture or transportation."

Indiana: "I am not at all convinced that the National Food and Drugs Act needs much tinkering. What that act requires is enforcement."

Iowa: "Prohibit in food products the presence of any poisonous ingredient, even though it be added in an amount so small as to have no noticeable physiological effect."

Kentucky: "A provision providing for its more active enforcement. Undoubtedly several provisions of the law need to be made plainer—the provisions relating to harmful ingredients, sanitary conditions, labeling to show adulterations and distinctive names, should be made plainer. I am, also, of the opinion that the authority to adopt regulations, which is now vested in the three secretaries, and which the supreme court has held to be complete, might well be vested in a board or individual more intimately associated with the problems at hand."

Georgia: "Repeal of guarantee 'clause,' also to make it contrary to law to put any poison or deleterious material in food products, regardless of the quantity."

Minnesota: "The forty regulations in connection with that act should be amended or abolished."

Nevada: "Adulteration clause defining adulteration of foods, paragraph 5 of section 7, eliminating the words, 'which may render such food injurious to health.'"

New York: "One that will prevent the entering into interstate commerce traffic of oleomargarine made in such imitation or semblance of butter, the product of the dairy, as to be well tended to deceive the consumer, because such product is well tended to induce the practice or perpetration of fraud upon the consumer."

North Dakota: "The amendment most needed is to strike out that part of the act recently passed upon by the U. S. Court in the bleached flour case, and in its place specifically prohibit the use of those most harmful and objectionable articles, salicylic acid, boric acid, saccharin, etc., and authorizing under proper regulations, the Secretary of Agriculture to promulgate definitions and standards, subject only to the review of the courts."

Ohio: "One lodging authority to fix and change standards officially."

Oklahoma: "The most urgent amendment appears to be a clearer definition of adulteration and misbranding, together with the enactment of a complete standard of food products."

Oregon: "An amendment prohibiting poisonous ingredients in food stuffs."

Pennsylvania (Food and Dairy Dept.): "Section 7, clause No. 5 of the National Food Law should be amended by striking out, 'If it contains any added poisonous or any added deleterious ingredient which may render such article injurious to health,' and substituting therefor, 'If it contains any added substance or ingredient which is poisonous or injurious to health.'"

Rhode Island: "Abolishment of sub-standards because they make more trouble."

South Dakota: "The amendment of the last paragraph of Section 8 so as to require that compounds, imitations and blends shall be plainly labeled to show the ingredients, and naming them in the order in which they occur relative to their proportional part, by weight in the compound, imitation or blend, the first named being that ingredient present in largest amount."

Tennessee: "One amendment most urgently needed at present time is the elimination from that part of it relating to the branding of drug preparations of the question of fraudulent intent."

Washington: "Causing all package goods to bear the year plainly stamped on container. Not the day and month, but year. This would aid in eliminating old, and stale goods."

Wisconsin: "A law that shall leave national food law administrators free and untrammelled in the administration of national food laws in the interest of the consuming public without being subjected to the influence of 'the various business interests under inspection.'"

Taking the answers, as a whole, the editor is inclined to agree with the commissioner from Florida, in indicating that the most urgent amendment needed is, indeed, the prevention of false advertising, if such could be incorporated as an amendment to the Food and Drug Act. Certainly, the proviso permitting official medicinal preparations that do not comply with the definition of standards laid down in the U. S. pharmacopoeia or national formulary should not be permitted to be sold under the names of those official preparations which they are *not* by reason of the fact that they do not comply with such standards.

After the questionnaire had been sent out to the commissioners, it was thought by the editor that it might be of interest to secure the opinions of reputable business interests on these same questions, in order that the viewpoint of the business men looking at the question from an interested angle might be secured. Accordingly, ten business firms of known and unblemished reputation in the business world handling

food or drug products were selected, and the questions submitted. Unfortunately, but five replies were received and several of the questions were not answered. Three firms replied to the question on diluted vinegar, and all were of the opinion that they should be labeled as being "diluted," although one admitted that the question as to whether vinegars should be permitted to be diluted was, at least, debatable.

Question 8 was answered by three: One believed that the proper handling of milk supplies was still the most important problem in need of sanitary reform. Another thought that personal cleanliness was the most important item, and a third declared that the reform most needed (or most neglected) was the proper handling of eggs and the packing of egg products. This suggestion is so interesting that I am constrained to give it in full:

"This reform is, we believe, needed in order that the good may be separated from the bad, the bad kept out of the food supply and the good saved for food purposes.

"We invite an investigation by you of the different classes of doubtful eggs that in your own state have in large quantities been going to the dump because with respect to certain kinds of eggs candling is not an adequate test. We believe that as a result of such investigation you will be convinced that such eggs should be regraded (by recandling and in breaking) under public supervision and inspection, in order that such part of the eggs as may be objectionable may be kept out of the food supply while, at the same time, such portion as may be found fit for food—upon the breaking of the eggs—may be approved for that purpose and conserved by proper methods.

"In some states laws have been enacted that aim to keep bad eggs and bad egg products out of the food supply but that have the additional effect—when enforced—of destroying with them eggs that are entirely fit for food. Such laws—together with such interpretations and such administration on Pure Food Laws as have the effect of bringing under condemnation good eggs because they are associated with eggs unfit for food, are, in our judgment, not usually very effective in keeping the bad stock out of the food supply. They commonly operate, rather, to make the arts of deception a source of business profit and, on the other hand, to handicap reputable packers. They sometimes make public office an easy stepping stone to a private trust. They help give copy to sensational publicists. They may promote the purchase and sale (under the guise of newspaper or magazine advertising or otherwise) of a publicist's endorsement or, at least, of immunity from the publicist's attacks.

"We believe that bad order eggs and eggs that because of being doubtful under the candling test go into the grade known as 'spots,' should be segregated and handled in establishments licensed for that purpose. We suggest for consideration the idea of making the license sufficiently high to pay the cost of public supervision and inspection. We also suggest that food products packed in such establishments might have labels disclosing the fact and showing, also, the location of the establishment and the date of packing.

"It is our impression that in other industries as well as in the egg business considerable quantities of good food are sometimes destroyed because of their association with bad or deteriorated food, from which the good might safely be separated in good condition if measures were taken to provide suitable facilities for rehandling and repacking under public inspection."

Four of the five answered the ninth question. One declares:

"While we can see certain advantages in having a board of business men collaborating with the commissioner, providing the personnel of the board is what it should be, still we are inclined to the belief that members of such a board would not be apt to feel a personal responsibility for their conduct that one man in authority is bound to feel. If the proposed board had power with divided responsibility, there would appear to be added temptation to promote special interests, and appointment to such a board might be sought as payment for political debts.

"As the matter now stands (in most if not all the states), the commissioner is free to get advice from the best business men if he needs it. A step in the opposite direction, namely, that of extending civil service to include all food and drug officials would appear to be a wise course."

A second reply reads as follows:

"I think it would be advisable to have someone from general business to act in an advisory capacity, merely giving the views of business men, manufacturers, etc., as to their viewpoint."

A third firm writes as follows:

"In answer to question 9, we express the view that it would be unwise to have a commission composed of any number of men selected from the various business interests under inspection, and appointed by the governor to serve with the food and drug commissioner in formulating the rules and policies of the department. Among our reasons are the following:

"(a) The Food Department of every state should have one efficient chief, who has had a thorough training in the principles of sanitation, in the preparation and marketing of food products. His position should be non-political, and he should be held responsible for the results of his efforts, and subject to recall. We believe that there is nothing which responsible dealers in food products more desire than the impartial, effective and sensible enforcement of food laws, and in our opinion, this plan will bring that result.

"(b) It does not appear to us proper for those who are financially interested in the sale of foods and drugs, to formulate the rules and policies of the department which has jurisdiction over their products, and we believe right-thinking dealers would hesitate about assuming such delicate responsibilities. We believe frequent consultation by food officials with persons of practical experience who are interested in the manufacture and marketing of food products is very desirable and beneficial; but there is no reason why such interests should be placed in position to control the policy of the department.

"(c) We fear the effect of the appointment of such a commission would tend to make the department political in its nature and favoritism might result."

It should be noted that this reply is from one of the most brilliant attorneys representing perhaps the largest food establishment in this country, if not in the world. His reasons for opposing a commission of the kind suggested in the question is such a keen-sighted one, and withal so sane and sound, as to challenge the attention of the entire business world.

The editor of a large and influential trade paper makes answer to question 9 as follows:

"Yes, under certain conditions, such a board could assist in avoiding technical errors, and make regulations thoroughly practical."

It should be noted that of the four answers given to this important question by large business interests, but one answer is in the affirmative, and that so conditioned as to be practically a negative answer. Plots and scheme and counter-plots to undermine effective food and drug control seem to have had a final answer in the tabulated replies to this question by the commissioners and the great business interests of the country.

Only two firms answered question 10. One says:

"Answering question 10, namely, 'What one amendment to the Food and Drug Act is most urgently needed? Why?' a plain declaration of the ingredients of all foods and drugs would appear to be the logical next step in food and drug legislation. The proprietorship of secret formulas is plainly less important than that every man should know what it is he is employing to sustain life and promote health."

The editor desires to remark that this answer to question 10 far surpasses in lofty idealism and keen regard for public welfare the answer made by any of the commissioners. It must be a matter of great congratulations to the country at large to have the country's great business interests assume such an altruistic attitude.

The other firm replies as follows:

"In answer to question No. 10, we suggest that until the practicability of the amendments which have already been adopted to the National Food Law has been demonstrated, it will be wise to refrain from further amendments."

The editor trusts that the time of the convention has been well spent in presenting the variety of views of the food and drug control officials alongside those of the legitimate business interests whose hearty co-operation in the enforcement of all reasonable rules and regulations this Association most cordially bespeaks.

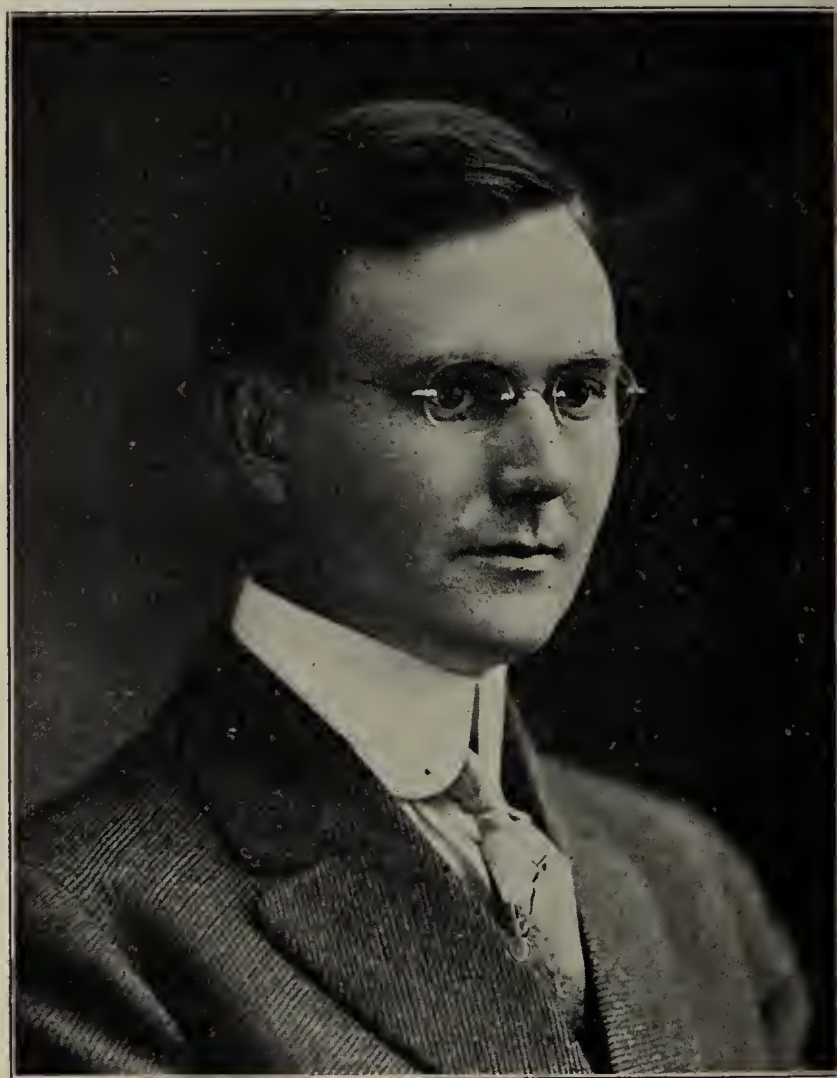
Respectfully submitted,

S. J. CRUMBINE, M. D.

Mr. Geo. B. Taylor of La.: I would like to offer a word of explanation for Louisiana. We never received that list of questions. We did receive a list of questions from the president, which we answered and when you first began to read I thought that was the list.

Com. F. A. Jackson of R. I.: I would like to say a word with regard to that answer on sanitation. We have no authority to deal with that. Through an act of legislature, the food sanitation is put under the jurisdiction of the office of factory inspection.

President Wallis: I want to say that I think that these questions and answers, which I hope will continue to form a part of our program, can become one of the most valuable parts of our gatherings and I hope if there is any Commissioner here who failed to



MR. GEO. B. TAYLOR, State Analyst, Louisiana.

answer them this time he will not fail to do so again. I know last year so many failed to answer them but if we could get all the Commissioners to pay attention to this it would be one of the most valuable things imaginable.

There was a motion to appoint a committee to draft an advertising law. I should have appointed that committee before but I overlooked it until Dr. Crumbine was reading his paper. I will appoint Mr. Flanders, Mr. Allen of Kentucky and Mr. Helme. And the committee to consider Dr. Crumbine's paper, to take it and place the recommendations in form for our next gathering is as follows: Mr. Foust, Mr. Frary and Mr. Strode.

We have two other papers. Mr. Barney of Iowa will now speak on Ice Cream Standards.

ICE CREAM STANDARDS.

NECESSITY FOR STANDARDS.

W. B. BARNEY.

The necessity for standards in ice cream has developed within the last few years, with the increase of its manufacture on a commercial basis. The ice cream industry is, historically, quite as old as the manufacture of butter and cheese by the creamery and factory system. The first recorded manufacture of this commodity on a larger scale was by Jacob Fussell of Baltimore, in the year 1851. Previous to this time, all the ice cream that was consumed, and the amounts were small, was made by the servants in the kitchen. Since the time of Fussell, the growth of the industry was very slow, until within the decade beginning with 1900, when it was estimated that the amount of ice cream consumed has been increased ten-fold. The valuation of the ice cream industry in 1910 was \$100,000,000 or one-eighth the value of the total dairy industry. In the state of Iowa last year, there was put out by our manufacturers, according to reports received by the department, over 3,000,000 gallons of ice cream, requiring the use of about 1,872,000 pounds of butter fat. Ice cream has become such a common dish, that it can be had at all restaurants, cafes, and at hotels and boarding houses it has come to be an often served dish.

Ice cream has come to be such a common article of consumption these days, that we firmly believe that food officials, legislators, and the public are justified in classifying ice cream as a food product, and demanding that the manufacture thereof comply with such standards as legislators may see fit to enact into their food laws, the same as for any other food product. In fact, the President of the National Ice Cream Manufacturers' Association in addressing members of that body at their convention in Chicago last fall, made the statement that the ice cream industry has placed its product in the class of food products and has left behind the period when it was considered merely in the sense of a luxury. These words express exactly our ideas on the subject as to the position that ice cream has come to occupy in these days of varied tastes and added comforts. We were particularly glad to hear the above statement, especially from the head of an association that has sought to overthrow ice cream standards generally and specifically the Iowa ice cream standard.

Ice cream is a product which may be very easily imitated. Consequently, in order to prevent adulteration, standards are necessary. Originally, ice cream was made by freezing cream with sweetening and flavoring materials added. But with the advance of its manufacture on a commercial scale, substitutions for the cream crept into its make-up, until at times, very little or no cream is used in the manufacture of so-called ice cream by some concerns. In Iowa, we have one specific instance where a product was sold for ice cream, containing only .4% (four-tenths of one per cent) butter fat.

As a protection for the scrupulous manufacturer who wishes to comply with the wishes of the consuming public who expect to receive an article in the semblance of cream when purchasing ice cream, practices like the above should be prohibited by law. Along this line, we wish to quote from the Hon. Judge Preston, state supreme judge of Iowa, in his decision upholding the constitutionality of the Iowa ice cream standard, and in which all of the justices concurred. The point under discussion was relative to the subject as to whether it was within the police power of a state to fix a standard for ice cream.

"It is conceded by the state that, to be a valid exercise of such power (police), the act must have relation to the comfort, safety or welfare of the public, but that the welfare of the public involves or includes the right of the legislature to protect the public from fraud and deception; that the constitution does not secure to any one the privilege of defrauding the public; that it is impossible for consumers of ice cream to determine by any ordinary diligence the ingredients of the product, and that, without a standard, opportunity is afforded unscrupulous manufacturers of ice cream to palm off upon the public a much cheaper and inferior article for a higher quality at the price of the better and more costly product."

There is a necessity for standards on ice cream; first,—because it is a food product; and second,—because it can be made up in such form that its main constituents need have no semblance of cream, thus giving an opportunity for fraud.

Our food laws are generally criminal statutes. Some courts say that a criminal statute must be specific and to the point in question. That matters of custom or usage, inference or intent are not admitted as competent evidence. That power can not be delegated to any person or commission to

define a crime. A food standard, therefore, must of necessity be enacted in the same manner as any other criminal statute if this be true.

Furthermore, a standard is necessary from the standpoint of preventing the use of adulterants in the constituents which go to make up ice cream, particularly the cream used. For instance, if a standard were not in force in our state, there would be nothing to prevent a substitution of other and cheaper fats, also inferior grades of butter fat, in ice cream for high class products. You are all aware of the very prominent part that homogenizing and emulsifying devices have come to take in the manufacturing of synthetic cream within the last few years. By the use of these devices, butter fat, good and inferior grades, oleomargarine, etc., may be incorporated in skim milk, milk, water and milk powder, making a product which is very much like, and in fact is very difficult to distinguish from ordinary cream. If it were not for a standard, it would be impossible for us to regulate the sale and manufacture of this synthetic cream, either as cream or made up into ice cream.

WHAT IS A REASONABLE STANDARD?

You are all aware of the fact that it matters not what line of endeavor you are engaged in, which throws you in contact with an individual or the general public, whether you are engaged in private enterprise or doing public duty, it is imperative that reasonableness be exercised in order that justice be given all concerned. In a case of a reasonable fat standard, justice must be given both the consumer and the manufacturer.

From the standpoint of the consumer, he has a right to demand that in ice cream, he be given a product which is made from cream which has such amounts of sweetening and flavoring material added, as to make the finished product reach the highest state of palatability and be manufactured under sanitary conditions. The manufacturer has a right to demand that ice cream standards shall be such that they will allow him to use cream which conforms to the state standard for market cream, with added sugar, flavoring and binder, will result in a product, which under reasonable conditions of manufacture, will conform to the standard required by statute.

We do not wish to appear in the least to be egotistical when we say that we believe that in Iowa we have put upon and enacted into our food law a standard which should be highly satisfactory to the consumer and which those who have had experience in the manufacture of ice cream, say is reasonable from the standpoint of the manufacturer. Our standard is as follows:

"1. Ice cream is the frozen product made from pure wholesome sweet cream and sugar, with or without flavoring, and if desired, the addition of not to exceed one per cent (1%) by weight of a harmless thickener, and contains not less than twelve per cent (12%) by weight of milk fat, and the acidity shall not exceed three-tenths (0.3) of one per cent (1%)."

"2. Fruit ice cream is the frozen product made from pure wholesome sweet cream, sugar, and sound, clean, mature fruits, and if desired, the addition of not to exceed one per cent (1%) by weight of a harmless thickener, and contains not less than ten per cent (10%) by weight of milk fat."

"3. Nut ice cream is the frozen product made from pure wholesome sweet cream, sugar and sound, non-rancid nuts, and, if desired, the addition of not to exceed one per cent (1%) by weight of harmless thickener, and contains not less than ten per cent (10%) by weight of milk fat."

No one will question the right to demand a pure wholesome and sweet product in the cream used for manufacturing, and in view of the fact, that ice cream takes its name from one of the most important constituents, that product should comply in its original state with the one from which it is named—cream.

There is no necessity for the amount of sugar to be specified, because that this constituent will regulate itself, its lack or excess decreasing the palatability of the ice cream. The same is true of the flavoring material. One per cent of a harmless thickener or binder is sufficient to give the ice cream those qualities which make it possible to put the frozen product out in attractive form, where a sufficiently low degree of temperature is maintained. A binder in excess of this amount is useless for that purpose, and where it is used, the purpose is to mislead the consumer.

In regard to the fat content of ice cream, we believe that where a four per cent decrease is allowed in that constituent from that of the original cream, in the plain ice creams, it is sufficient. This four per cent decrease will allow for the decrease due to the addition of the sugar, flavoring material

and binders, which contain no butter fat and will also allow for the fat content lessened due to mechanical losses.

Very rarely will occasion arise where a product which should legitimately be sold for ice cream, which would contain .3% (three-tenths of one per cent) of acid. Any ice cream which contains more than that amount of acid has not been handled properly and should not be allowed the privilege of sale.

It was with no little degree of satisfaction that we learned that the National Association of Dairy Instructors at their meeting in Chicago last fall, adopted resolutions endorsing standards, which correspond almost identically with those on the Iowa statutes.

The addition of fruit and nuts to ice cream decreases the butter fat content, the same as other non-butterfat containing substances. Consequently, a decrease in the fat content should be allowed and two per cent decrease from that of the plain ice cream in the total is a very liberal allowance from the standpoint of both the consumer and the manufacturer.

We firmly believe that the standards suggested and which are written in our Iowa statutes are reasonable.

FEASIBILITY OF A MILK FAT STANDARD.

In regard to the feasibility of a fat standard, we believe that as far as it goes, it is very practical. However, we will not concede that it alone is sufficient. As a general rule, it is found that the main differences in ice cream lie in their fat contents. You will generally find that an ice cream which contains the proper amount of fat will otherwise conform to the standard which should be required.

We know that some are opposed to a fat standard because they say it is impossible to make accurate butter fat tests; that the butter fat content varies in different parts of the container, etc. It is entirely practical to make butter fat determinations in ice cream by the use of Babcock testing apparatus, and therefore, we have no sympathy with those who are opposed to a butter fat standard because its determination is not impossible either in the hands of the manufacturer or the professional analyst. With a little practice, ice cream testing for butter fat becomes comparatively simple.

We have studied thoroughly the proposition of variation of butter fat content tests of ice cream, taken from different parts of the container, and are convinced that where the proper ingredients are used in ice cream to start with, the cream is kept properly agitated during the process of manufacture, where the ice cream as soon as it is taken from the freezer is started properly on the course of hardening, and this in no way is delayed until completely refrigerated; that where the ice cream is kept sufficiently cold while in the possession of the manufacturer, and is kept properly packed in going to, and while in the hands of the retailer, there is no separation of the butter fat in the ice cream.

Proper methods and attention to details are as necessary in the manufacture of ice cream as in the manufacture of any other standardized food product and because of the fact that by slack methods, variations of fat content can occur, we see no reason for declaring that this should be an excuse for deciding that the fat standard is impractical.

SHOULD "FILLERS" BE PERMITTED AND WHAT FILLER IS LEAST OBJECTIONABLE AND IN WHAT QUANTITY?

The use of fillers and binders should both be permitted in the manufacture of ice cream. In order to get straight in the minds of all present, the use of the terms "binder" and "filler" I will try and make plain the purpose for which they are intended.

A filler is any harmless substance which may be added, which partakes of the nature of milk products and is added for the purpose of increasing the solids in the ice cream and gives to it, what we call a heavier body. Examples of fillers used in our state, are condensed milk, either skimmed, whole or sweetened; and milk powder. The latter has grown into use to a very great extent, within the last four or five years.

A binder is any substance added to ice cream which will aid in giving consistency to the cream, which helps it to "stand up" to use the term current among our manufacturers. It prevents the crystallization of the water in the ice cream, which should it take place, gives a piece of ice cream which is coarse or icy. Examples of binders are gelatin, gum arabic, gum tragacanth, and the so-called ice cream powders, which contain largely gelatin and in some cases percentages of the gum products. Gelatin, we are well aware, is a packing house by-product, and as in other commercial products, is put up under various grades of purity and standards of sanitation. We can see no objection to its use, provided the best grades of it are used, and are recommending that the clear leaf gelatin be used. The gums mentioned be-

ing purely vegetable products cannot be objected to, where used in only such quantities as to serve the above mentioned purpose of a binder. However, being more expensive they are not used so extensively. As to what binder would be least objectionable, we perhaps, would be justified in saying, that the vegetable products should come first. However, we cannot object to the use of gelatin of the proper grade.

President Wallis: Mr. Winkjer of Minnesota leads the discussion on this paper.

ICE-CREAM STANDARDS.

J. G. WINKJER.

In opening the discussion it may be well to state that the ideas advanced are based upon my experience in enforcing the Minnesota ice cream law.

A. The necessity for standards covering ice cream will be best understood by those of us who are familiar with conditions as they existed eight or ten years ago, before any attempt had been made to bring it under official food control. I will not at this time attempt to cover in detail the then existing conditions; it is sufficient to state that they were deplorable.

In January, 1907, the dairy and food commissioner of Minnesota called in consultation the manufacturers of ice cream who could be reached within the State, for the purpose of agreeing on what should constitute a legal standard for that product, with the result that 12 per cent butter fat was unanimously agreed upon as a proper legal requirement. Chapter 124, G. L. 1907, was then drawn, was passed by the legislature, and became effective April 6, 1907. Now, this method of standardization was not new. Insofar as the laws of Minnesota are concerned, we had long before that time, standardized milk, cream, butter and cheese, and the courts, without exception, had sustained said standards whenever the law was contested. There is not the least doubt in my mind that Chapter 124 is a just and proper law for the protection of the consumer against deception and fraud. I am also of the opinion that the courts will hold that ice cream, as now manufactured, is a dairy product and should, of necessity, be standardized.

B. It would seem that a reasonable standard for ice cream could be found by a decision of a majority of disinterested, sensible, unprejudiced men familiar with present conditions of production, as well as the ingredients that go to make up the finished product. They should not be interested financially in its production. You are all familiar with the present range of standards of the various States, as well as the decisions of the courts of some of the States whose laws have been attacked. Both of these subjects may or may not be used in reaching a conclusion concerning said standards. Assuming that a decision has been arrived at and that a lower priced product is demanded by some of the consumers, or even desired by the manufacturer, we now approach the sub-standard product, together with the accompanying regulations as to labeling. In illustration, ice cream containing butterfat in the quantity set forth by law should be labeled: Ice Cream Manufactured by John Doe, Portland, Me. If a sub-standard be desired, it should be labeled: One-half Standard Ice Cream, Contains — per cent, Manufactured by John Doe, Portland, Me. A product containing less than one-half the standard requirements will be within the milk class, and should be labeled Ice Milk, giving the percentage of butterfat, together with name and address of the manufacturer. If made from skimmed milk, it should be labeled Iced Skimmilk, giving the name and address of the manufacturer. It is, of course, understood that the numerous recipes of the cook books may be frozen and sold under their proper names, but may not be sold as ice cream.

C. The feasibility of the butterfat standard should be apparent to all for the reason that butterfat can always be recovered and is more stable than the other ingredients which go to make up the finished product; and for the further reason that it is in use in several other food products as the basis of their legality.

D. There is no good reason why a harmless filler should not be used.

E. The filler that appears to give the best satisfaction is gelatine. The quantity should not exceed five-tenths of one per cent. I am aware that there are persons who decry standards for ice cream. Some years ago, at a meeting of ice cream manufacturers in the city of Chicago, the president of the association, addressing the members, said: "We do not want a law that makes standards. When you ask for one per cent, or two per cent, or eight per cent of butterfat in

ice cream, you are asking for an arbitrary standard. We are Americans; our standard is as high as the heavens, and whatever people want and are willing to pay for, give them," which is equivalent to waving the flag and urging your wife's relations to go to Mexico. That the people of Illinois were not in love with the heavenly standard is evident, for they later adopted the standard based upon the per cent of butterfat, which proves conclusively that they are practical as well as American.

The adoption of standards by legislative enactment protects the consumer from deception and fraud. The advocates of no standard for ice cream are well aware of that fact, but say these advocates: "We will protect the public by giving them superior goods, recipes from good old cook books of other days, and other methods." Where can these superior so-called ice creams be found? You look in vain for them in a lobster palace on the Great White Way, prepared by a chef and sold at a price per service that would keep an ordinary consumer's family for a week.

They tell the public when you ask for one per cent of butterfat in ice cream you are arbitrary. It follows that you are ten times as arbitrary when you ask for ten per cent butterfat. I beg to remind the advocates of no standard for ice cream that all laws, and regulations authorized thereunder, are of necessity arbitrary. The federal food and drugs act, as well as the pure food laws of every State, are arbitrary and, therefore, insofar as their interests are concerned, should be set aside. Their counsel has attacked the laws of several States which regulate the manufacture and sale of ice cream. Was it the protection of the consumer or of their own interests that supplied the underlying motive for such attacks? Their purpose is so apparent that it should deceive no one, and if they are satisfied with the results thus far accomplished, the food officials, whose duty it is to enforce the laws, have reason to feel grateful. I am in a position to state that there is a very nice profit in the manufacture of ice cream containing 12 per cent butterfat. As a matter of fact, it is so profitable that agricultural schools and colleges of the Northwest are teaching the methods of manufacture to their students, with the result that many creameries have taken it up as a side line and are creating a market for a product that has approximately three times as much overrun as compared with creamery butter.

I am, therefore, a firm advocate of a butterfat standard for ice cream, and am of the opinion that the day of heavenly standards and go-as-you-please methods are of the past. They have been replaced by a percentage basis of value and laws for sanitary food control.

As before indicated, the most important factor is the adoption of a standard that will be uniform throughout the United States. Other subjects may arise from time to time, but they are matters of detail and should not be allowed to interfere with the adoption of a satisfactory ice cream standard.

Com. James Foust: I move we now hear from the resolutions committee. And then proceed to the election of officers.

President Wallis: If there is no objection the motion will be declared carried. The chairman of the Resolution Committee will please come forward.

Dr. E. F. Ladd: The Committee on Resolutions desires to present the following:

RESOLUTIONS.

I.

RESOLVED, That the members of the Association of American Dairy, Food and Drug Officials express to the Honorable Council of the City of Portland our hearty thanks for the use of this beautiful convention hall.

II.

RESOLVED, That this Association express to the Portland Board of Trade our hearty thanks for their cordial hospitality and for the liberal entertainment provided for our members, our families and our guests; and we wish to say we think it most fortunate that the arrangements were so carried out that the Convention was held in this most beautiful city. It has never been our pleasure to meet any place more conducive to genuine convention work. A beautiful hall for our sessions, courteous people with and about us, beautiful scenery on every hand, cool and invigorating breezes from the ocean, and the fullest co-operation by the weather man, all have joined in making our deliberations and our stay so pleasant and satisfactory that, although we depart from your midst with regret, we go as

enthusiastic boosters for Portland and we consider ourselves most fortunate that it was finally decided to hold the Eighteenth Annual Convention here.

III.

RESOLVED, That this Association express to the Portland Board of Trade its appreciation of their earnest efforts in making our Convention a success, especially for the organ recital which was listened to with much pleasure, and to thank, through the Board, those citizens who by the use of their automobiles made it possible for us to enjoy a delightful ride around your city.

IV.

RESOLVED, That this Association express its most hearty thanks to the people of Portland who have in every instance shown us the utmost courtesy and who have done everything in their power to make the work of the Association pleasant and to entertain us in the hours when we were not in session.

V.

RESOLVED, That this Association express its thanks to the press of the city of Portland for their co-operation and for the liberal reports of the proceedings.

VI.

RESOLVED, That this Association express its thanks to the Honorable Secretary of Agriculture for the efforts that are being made through his department to secure a more efficient co-operation between the Federal and State Departments, and along this line to heartily endorse the work of Dr. Carl L. Alsberg and of Dr. J. S. Abbott, who are doing all in their power to make possible such a co-operation.

VII.

RESOLVED, That this Association express its hearty thanks to the Maine packers and the American Canning Company for their liberal hospitality and for the entertainment afforded our members, our families and our guests.

VIII.

RESOLVED, That the members of this Association express their most sincere thanks to the Officers of the Association for the splendid program, and to the President, the Honorable James H. Wallis, for the courteous, efficient and impartial manner in which he has conducted the several sessions of this Convention.

RESOLVED, That we heartily endorse and commend the work of the National Dairy Show being held each year in Chicago. That we especially urge the attendance of commissioners, inspectors and others interested, recognizing as we do that this is a great school of instruction.

RESOLVED, That this Association vigorously condemns that existent practice involving the addition to food of a small or inappreciable amount of any substance, where such addition is obviously for the purpose of naming the substance upon the label, or otherwise to the end of imparting a value which is fictitious; also those methods of treatment, demonstration, or representation generally which is misleading in effect or founded upon false principles. And in this connection we denounce the fraudulent water glass test used with "albumenized" baking powder in comparison with other powders.

WHEREAS, The interstate shipment and sale in recent years of sweated or fraudulently colored immature oranges has become a menace to the public, health and whereas there is no practical, physical method by which to distinguish such immature oranges by color, texture, or other Rhinal condition; be it

RESOLVED, That the Joint Standard Committee be requested to investigate the chemical standard test now enforced by the state of Florida with a view of adopting a simple, reliable, and inexpensive test for the guidance of inspectors and consumers and to adopt a uniform standard for immature oranges.

WHEREAS, The wholesomeness of food products depend not only on the soundness of the product and the sanitary conditions under which they are produced but also upon the freedom from communicable diseases of those who handle food; therefore be it

RESOLVED, That it is the opinion of this Association that the physical examination of all persons that handle food products is essentially necessary if the safety of such products can be absolutely assured.

WHEREAS, We have information that an effort will be made at the next session of Congress to secure the

passage of an amendment to the law now in force regulating the sale of oleomargarine.

WHEREAS, The Federal laws now existing for the regulation of the sale of oleomargarine are in our judgment defective, and do not protect the people as they should against the sale of oleomargarine as butter, therefore be it

RESOLVED, By this Association, that in our judgment the following changes in the oleomargarine law are needed:

1. The Federal act distinguishes in its treatment colored from uncolored oleomargarine, but its definition of the colored oleomargarine is so narrow that by the use of improved processes a very large quantity of oleomargarine resembling yellow butter in color escapes classification as colored oleomargarine and is treated as an uncolored product. That is to say, the Federal act does not class oleomargarine as colored unless the coloration be effected by the addition of a distinct dye stuff; yet, by the use of high colored fats, or of special processes of the treatment of the fats, a yellow oleomargarine may be produced, and, because of the narrow terms of the act at the point mentioned, be classed and taxed as uncolored oleomargarine. The result of the condition is that the consumer is commonly deceived into the belief that the article is butter and the vendor is given grounds for a claim that he has been misled. The act should be amended by so defining colored oleomargarine that it shall include all butter substitutes that shall have been caused to resemble yellow butter, no matter how—whether it be by the addition of butter itself, the use of other fats of yellow color, by the addition of dye stuffs, or by such treatment of ingredients as effect the yellow coloration of the product.

2. The provision that an offender must be proven to have "knowingly" violated the law in order to secure conviction should be stricken out.

3. Revenue collectors should not be instructed nor permitted to compromise or settle cases growing out of violations of the law. When the offense is apparent and the proof is available, the case should be disposed of by the courts having jurisdiction.

4. The law should require that all stamps, brands, etc., placed upon packages of oleomargarine for their identification shall be so conspicuous and plain as to prevent their concealment.

5. Applicants for revenue license should be required to certify that the location given for their place of business is true and correct, and if oleomargarine is sold by the applicant at any other location than that designated in the revenue license, such sale should be made a misdemeanor.

RESOLVED, That copies of these resolutions be sent to the President of the United States and to the Committees of Agriculture of both the houses of Congress.

RESOLVED, That this Association earnestly favors the establishment of uniform regulations in the various states, and, where necessary, the enactment of additional and uniform statutes, that will more effectively apply the principles and requirements of our food control laws to hotels, restaurants, cafes and all public eating places to the end that the use of all adulterated foods may be prohibited and also that the service or sale of substitutes or imitation foods of all kinds whatsoever without notice to patrons or guests may be effectively prevented and that the wholesomeness of foods and the health of the consumers be safeguarded by reasonable and effective sanitary and hygienic requirements.

To the Honorable President of the United States, and the Members of Congress.

The undersigned committee, duly appointed by the Honorable James H. Wallis, President of the Association of American Dairy, Food and Drug Officials, pursuant to a resolution passed by that Association at its 17th annual convention at Mobile, Ala., June 16-20, 1913, of which the following is a copy—

"Resolved That this Association memorialize Congress and the President of the United States, that in our opinion an amendment of the Food and Drugs Act, providing that power to make standards for food products, which standards should be recognized by the courts as prima facie evidence of what is the true standard for a food product, should be delegated to the U. S. Department of Agriculture, which department should also be empowered to cooperate with this Association in securing the data and facts necessary for the formulation of such standards."

—do hereby respectfully recommend that in the name of

the Association of American Dairy, Food and Drug Officials, in pursuance of the above regulations, that Congress be requested to pass a law empowering the Secretary of Agriculture to fix, make and promulgate standards for foods and drugs entering into traffic that is interstate, international or with the Indian tribes or that is wholly within a territory of the United States or the District of Columbia, or that is between any state of the United States and the District of Columbia, or between any such state and any territory of the United States; that the power so conferred upon the Secretary of Agriculture shall be for the purpose of determining the purity or strength of such food or drug, and for the purpose of determining whether it may be sold under a given name or designation, and such standards when so made, fixed and promulgated shall be construed as determining the fact of whether the particular food or drug is an adulterated product within the meaning of the statute, and that such law shall provide that all such standards when duly made and promulgated by the Secretary of Agriculture shall be deemed by the court in any case or prosecution under the Food and Drugs Act to be presumptively correct as standards, and that if the particular food or drug product under consideration does not meet the requirements of the standard or falls below such standard, that the court shall deem such evidence presumptive of the fact that such goods are adulterated or mislabeled, as the case may be, within the meaning of the Food and Drugs Act, and that such evidence when properly placed before the court shall constitute a prima facie case of a violation of the Food and Drugs Act.

(Signed)

SANFORD C. DINSMORE,
JAS. W. HELME,
E. F. LADD,
G. S. FLANDERS.

RESOLVED, The above resolution and request be referred back to the committee, and that such committee be and hereby is instructed to present or send copies thereof to each member of Congress and each United States Senator.

That such committee be further directed to prepare or cause to be prepared a bill, and cause the same to be introduced into Congress providing for the amendments, that such committee be further directed to request a hearing if necessary before the committee having charge of such bill, and to take such further action in relation thereto as may be deemed proper and necessary to procure its enactment into a law.

WHEREAS, It is becoming increasingly evident that the National and State Food and Drug Laws have failed and will continue to fail to afford the fullest protection possible to the consumers against false and fraudulent food and drug products; and,

WHEREAS, The Associated Advertising Clubs of United States and Canada and a number of state editorial associations have expressed a purpose to eliminate false and fraudulent advertising from the columns of their publications; therefore be it

RESOLVED, That the Association of American Dairy, Food and Drug Officials in their 18th Annual Convention extend to the Associated Advertising Clubs of United States and Canada, and the various state editorial associations their cordial approval of any steps taken toward the elimination of all false and fraudulent advertisements, especially those calculated to deceive and mislead the sick and suffering public, and we commend in an especial manner those courageous publications that have already cleansed their columns of such objectionable advertisements; and be it further

RESOLVED, That it is the sense of the Association that the membership of this Association stand ready to extend to all publishers any information they may have through laboratory examinations of food and drugs or by other methods, that may be requested of them as a guide for the acceptance or rejection of advertisements of food and drug products.

WHEREAS, Experience in the enactment and enforcement of national food laws has shown the legitimate wholesale grocers of the country to be cordial and efficient allies of the Food Commissioners and their advice has often been of great assistance in making food laws both intelligent and practical and their enforcement effective; therefore be it

RESOLVED, That we express our appreciation of their attitude towards official food control and urge all food

officials so far as practical to enlist the co-operation of the wholesale grocers in their work.

RESOLVED, That we heartily endorse and urge the early enactment into law the bill offered by Senator W. S. Kenyon of Iowa providing for the purity of our linseed oil and paint.

WHEREAS, The question of the proper production, handling, storage and marketing of eggs is of tremendous importance both from an economic point of view and from the standpoint of determining what eggs are fit for human consumption and what are not; therefore, be it

RESOLVED, That a committee of three be appointed by the President to make a careful inquiry into and investigation of these matters and report their findings and recommendations to the next annual convention.

RESOLVED, That this Association heartily endorse the efforts to secure an amendment of the United States postal laws to the end that all state food, dairy and drug departments may have the privilege of the use of second-class rates on mail matters; and that we endorse Senate Bill 4444, now pending before the Senate Committee on Postoffice and Post Roads, as a proper amendment for the accomplishment of this end.

RESOLVED, That in the efforts to secure the full benefits of cooperation in the enforcement of food and drug laws, that this Association endorses and urges the state commissioners extend every possible assistance to any other commissioner, in his efforts to enforce his law, either by the furnishing of data secured in laboratory investigations or in any other way which will furnish him evidence in the trial of any case involving the enforcement of food and drug laws in any state.

RESOLVED, That the Association look with disapproval upon hasty, unadvised, and oftentimes retrogressive legislation concerning foods and drugs, introduced by interested parties, and passed by legislatures without consultation and advice of the food officials of the states.

RESOLVED, That the thanks of the Association be extended to Dr. W. D. Biglow for the able presentation of his paper on swells and springers, and we appreciate very greatly that attitude of co-operation with food officials as shown by the National Canners Association which Dr. Biglow represents.

(Signed)

E. F. LADD,
J. B. NEWMAN,
CHAS. D. HOWARD,
S. J. CRUMBINE,
W. B. BARNEY,
Committee on Resolutions.

Dr. E. F. Ladd: And on behalf of the committee I move the adoption of these resolutions.

Seconded by Dr. Crumbine.

President Wallis: If there is no objection the resolutions are adopted. We will now proceed to the organization.

REPORT OF CREDENTIALS COMMITTEE.

Your committee on credentials respectfully submits the following named persons as entitled to represent their respective States and departments as voting members at this the eighteenth annual convention of the Association of American Dairy, Food and Drug Officials:

No. of votes.		
3	Connecticut	F. H. Stadmueller John P. Street T. Holt.
3	Florida	R. E. Rose
3	Idaho	James H. Wallis
3	Illinois	John B. Newman
3	Indiana	H. E. Barnard W. F. King
3	Iowa	W. B. Barney W. R. Chittick

3	Kansas	S. J. Crumbine J. T. Willard
3	Kentucky	R. M. Allen
3	Louisiana	Geo. B. Taylor
3	Maine	A. W. G. Soule L. S. Pennell J. A. Roberts
3	Maryland	Chas. Caspari, Jr.
3	Massachusetts	H. G. Lythgoe
3	Michigan	J. W. Helme F. L. Shannon
3	Minnesota	J. G. Winkjer John McCabe Julius Hortvet
3	Missouri	F. H. Fricke E. G. Bennett
3	Nevada	S. C. Dinsmore
3	New Hampshire.....	C. D. Howard
3	North Carolina.....	W. M. Allen
3	North Dakota.....	E. F. Ladd
3	New York.....	Geo. L. Flanders W. B. White
3	Ohio	S. E. Strode B. F. Gaynor B. C. Bartlow
3	Pennsylvania	J. S. Foust Wm. Frear
3	Rhode Island.....	F. A. Jackson F. N. Strickland
3	South Dakota.....	G. G. Frary
3	Tennessee	John Frick
3	Texas	T. H. Johnson
3	Utah	H. C. Smith
3	Virginia	W. D. Saunders
3	Vermont	C. P. Moat Stone
3	U. S. Dept. of Agri....	C. L. Alsberg W. C. Henderson H. H. Rawl

Respectfully submitted,
JOEL G. WINKJER,
FRANK A. JACKSON,
H. C. SMITH,
Credentials Committee.

Twenty-nine States and U. S. Dept. of Agriculture:

Connecticut.	Nevada.
Florida.	New Hampshire.
Idaho.	New York.
Illinois.	North Carolina.
Indiana.	North Dakota.
Iowa.	Ohio.
Kansas.	Pennsylvania.
Kentucky.	Rhode Island.
Louisiana.	South Dakota.
Maryland.	Utah.
Maine.	Vermont.
Michigan.	Virginia.
Minnesota.	Tennessee.
Missouri.	Texas.
Connecticut:	
F. H. Stadtmueller, D. & F. Com.	
Thomas Holt, Deputy D. & F. Commissioner.	
John Philips Street, Chemist Experiment Station.	
Florida:	
R. E. Rose, State Chemist.	

Idaho:

James H. Wallis, State D. F. & Sanitary Com.

Illinois:

J. B. Newman, Asst. State Food Com.

Thomas P. Sullivan, Member. The Illinois State Food Standard Commission.

Indiana:

H. E. Barnard, F. & D. Com.

Dr. W. F. King, Sec'y State Board of Health.

Iowa:

W. B. Barney, State D. & F. Com.

J. R. Chittick, State Chemist.

Kansas:

S. J. Crumbine, Sec'y State Board of Health.

S. T. Willard, Chemist F. & D. Dept.

Kentucky:

R. M. Allen, Head F. & D. Division.

Louisiana:

George B. Taylor, State Analyst.

Maine:

J. A. Roberts, Com. of Agriculture.

A. M. G. Soule, Chief Deputy Inspector.

J. M. Bartlett, Chemist Exp. Station.

H. H. Hanson, Associate Chemist.

L. S. Pennell, Deputy State Sealer Weights & Measures.

A. G. Young, Sec'y State Board of Health.

Maryland:

Charles Caspari, Jr., State F. & D. Com.

Massachusetts:

H. C. Lythgoe, analyst State Board of Health.

Michigan:

James W. Helmle, D. & F. Com.

F. L. Shannon, State Analyst.

Minnesota:

J. G. Winkjer, D. & F. Com.

John McCabe, Asst. D. & F. Com.

Julius Hortvet, Chief Chemist F. & D. Dept.

Missouri:

F. H. Fricke, F. & D. Com.

E. G. Bennett, Dairy Com.

H. E. Wiedemans, State F. & D. Dept.

W. F. King, Asst. Sec'y State Board of Health.

Nevada:

S. C. Dinsmore, Com. F. in charge Food Control.

New Hampshire:

Chas. D. Howard, Chemist State Board of Health.

New York:

G. L. Flanders, Counsel Dept. of Agriculture.

W. B. White, State Chemist.

North Carolina:

W. M. Allen, State Food Chemist.

North Dakota:

E. F. Ladd, State Food Commissioner.

Ohio:

S. E. Strode, Commissioner.

B. T. Gaynor, Sec'y Agricultural Commission.

C. A. Pontiers, Dairy Inspector Dept. of Agri.

Pennsylvania:

James Foust, D. & F. Commissioner.

William Frear, Chief Chemist D. & F. Bureau.

Rhode Island:

Frank Jackson, Chairman Pure Food & Drug Commission.

F. N. Strickland, Sec'y and Chemist.

South Dakota:

Guy G. Frary, State Food & Drug Commissioner.

Tennessee:

John Frick, Chief Asst. Inspector.

Texas:

Tom H. Johnson, Food & Drug Inspector.

Utah:

H. C. Smith, Asst. Food & Drug Commissioner.

Vermont:

B. H. Stone, Director Laboratory State Board of Health.

C. P. Moat, Chemist, State Board of Health.

Chas. F. Dalton, Director Laboratory State Board of Health.

Virginia:

Wm. D. Saunders, State Dairy & Food Commissioner.

U. S. Dept. of Agriculture:

Carl L. Alsberg, Chief Bureau of Chemistry, Washington, D. C.

B. H. Rawl, Bureau Animal Industry, Dairy Division Chief, Washington, D. C.

J. S. Abbott, Chemist in Charge of State Co-operative Food and Drug Control, Washington, D. C.

H. M. Loomis, Bureau Chemistry, Chemist in Charge Food Control, Washington, D. C.

L. F. Kebler, Chemist in Charge Drug Lab. Bureau of Chemistry, Washington, D. C.

L. M. Tolman, Bureau of Chemistry, Chief Central Inspection District, Chicago, Ill.

R. E. Doolittle, Bureau of Chemistry, Chief New York Laboratory, New York City.

I. K. Phelps, Chemist in Charge Organic Chemistry, Laboratory, Bureau of Chemistry, Washington, D. C.

P. B. Dunbar, Assistant Chemist in Bureau of Chemistry, Washington, D. C.

A. L. Sullivan, Bureau of Chemistry, Chief Boston Laboratory.

W. C. Henderson, Assistant Solicitor Dept. of Agriculture.

Dr. H. E. Barnard: I move Dr. S. J. Crumbine of Kansas be elected president.

Mr. R. M. Allen: Second the motion, Mr. President, and that the rules be suspended and no other nominations accepted.

President Wallis: By acclamation and a suspension of the rules having been ordered, Dr. S. J. Crumbine is president of this organization. Nominations for vice-president are now in order.

Mr. John Newman: I rise to nominate Dr. E. F. Ladd of North Dakota for vice-president, and that the rules be suspended and no other nominations accepted.

Motion seconded.

President Wallis: I am putting this all in one motion now. All in favor of Dr. E. F. Ladd for vice-president by suspension of the rules, say "Aye"; those opposed "No"; the Ayes have it and Dr. E. F. Ladd is elected first vice-president.

Com. S. C. Dinsmore: I nominate H. C. Smith of Utah as 2nd vice-president and that the rules be suspended and no other nominations be accepted.

Motion seconded.

President Wallis: It has been moved and seconded that Mr. H. C. Smith of Utah be elected 2nd vice-president by acclamation, the rules being suspended and no other nominations accepted. All in favor say "Aye"; those opposed "No." The Ayes have it and he is elected. Nominations for third vice-president are in order.

Mr. H. C. Lythgoe: I nominate Mr. A. M. G. Soule of Maine for 3rd vice-president and that the rules be suspended and the secretary instructed to cast a ballot for Mr. Soule.

President Wallis: To cut it short, the motion before the Association is on the election of Mr. Soule for 3rd vice-president. All in favor say "Aye"; those opposed "No." The Ayes have it and he is elected. The Secretary is elected for three years, Mr. W. M. Allen goes to San Francisco with us. Nominations for Treasurer are in order.

Mr. C. D. Howard: I nominate Mr. F. A. Jackson of Rhode Island and move that the rules be suspended and the secretary instructed to cast one ballot.

Motion seconded.

President Wallis: You have heard the motion. All those in favor say "Aye"; those opposed "No." The Ayes have it and Mr. F. A. Jackson is the man to hold the funds of the organization.

We have a member for the three-year term on the executive committee to elect.

Hon. Geo. L. Flanders: I nominate James H. Wallis of Idaho and that the rules be suspended and the secretary instructed to cast the ballot.

Seconded.

President Wallis: I don't think any wiser selection would have been made. All in favor of myself as a member of the executive committee say "Aye"; those opposed "No." The Ayes have it and I am elected. Dee-lighted. (Applause.)

Now for the chairman of the committee on co-operation.

Mr. R. M. Allen: I nominate Mr. Scott Matthews, the Food Commissioner of Illinois.

Com. W. B. Barney: Second the motion.

President Wallis: All in favor of that motion say "Aye"; those opposed, "No." The Ayes have it and he is elected. Now we want another member.

Com. F. A. Jackson: I nominate Mr. F. H. Fricke of Missouri as the other member on the Committee on Co-operation.

Seconded.

President Wallis: All in favor of that motion say "Aye"; those opposed "No"; he is elected. Any other business?

Com. James Foust: I desire to nominate Berkeley, Cal., as the place of meeting for our next convention.

President Wallis: We have some other invitations. The secretary will read them.

Secy. Allen: We have invitations from the following places:

Atlantic City, N. J.

New York City.

New Orleans, La.

Buffalo, N. Y.

Columbus, Ohio.

Fargo, N. D.

San Francisco, Cal.

Oakland, Cal.

Berkeley, Cal.

I move that we dispense with reading the invitations and nominate Berkeley, Cal., by acclamation.

Seconded.

President Wallis: All in favor of Berkeley, Cal., say "Aye"; those opposed "No." The Ayes have it and Berkeley goes. Any other business before this convention adjourns?

Com. F. A. Jackson: I move the official record of these proceedings show that those invitations were read at this convention.

Officers and Members Association of American Dairy, Food and Drug Officials:—

On behalf of the Panama-Pacific International Exposition, allow me to renew the invitation heretofore extended to your organization to meet in San Francisco in 1915, and to assure you that if the invitation is accepted, we will co-operate in every feasible way in working out plans to insure the success of your meeting.

As the Exposition is to be an expression of the nation's pride in the completion of its great work for the benefit of mankind, it is the purpose to show the achievements of our decade and the opportunities which will be opened by the construction of the Panama Canal. To illustrate and emphasize the methods by which the progress shown in the exhibits has been attained, a great series of congresses and conventions will constitute a vital part of the Exposition. Your convention, if held here, will be a part of that series, gathering the inspiration of the occasion and benefiting by the publicity that will result from meeting at the focus of the world's interest.

We are especially desirous that a congress on the subjects of Pure Foods, Pure Drugs, and Uniformity in Pure Food Laws, should be organized, with the co-operation of the various societies interested in these subjects, in order that the assured extensive exhibits in these lines—Governmental and other—may be used to establish the highest ideals and standards of Pure Foods. It has seemed to us that your association could appropriately take the leadership in organizing such a conference or congress.

Imbued with this conception of bringing together the great thinkers and doers of our time, as well as the products of their brains and hands, the Exposition management is erecting at an expense of \$1,000,000 an auditorium at the new Civic Center of San Francisco for the free accommodation of these gatherings. It will contain eleven halls, ranging in seating capacity from 400 to 10,000 people, and has been designed especially for convention work. In addition there are nineteen rooms, seating from 30 to 125 people each, suitable for committee meetings or small convention sections. Additional halls are available, if needed, in this city and in Oakland and Berkeley, without expense to any organization participating in the series of congresses and conventions.

The progress already made and the funds at hand, make it certain that the Exposition will be ready on the opening day, February 20th, 1915. Work is proceeding rapidly and all will be ready for the installation of exhibits by August 1st next.

The energy and enterprise which rebuilt San Francisco after the great fire of 1906 will make ample provision for taking care of the crowds that are expected next year. On the Ferry Building is this sentence in illuminated letters: "CALIFORNIA INVITES THE WORLD." Realizing their responsibility as hosts, the people of the state, and especially of this city, are preparing for the reception of their guests, for they wish those who come, to carry with them the most pleasant memories of California. The San Francisco Hotel Bureau has been organized, representing over 300 modern hotels and apartment and rooming-houses, with a total of over 50,000 rooms which may now be reserved for definite dates at from \$1 to \$3 per day, per person, European plan. A concession has also been granted for the construction of a large hotel on the Exposition grounds, which will cater especially to conventions and in which rooms for two persons may be reserved at from \$2 to \$10 per day, European plan.

The Transcontinental Passenger Association has established round trip Exposition rates to San Francisco by direct routes, with privilege of going via one direct route and returning via another direct route, as follows: From Missouri River points, including Omaha, Kansas City, St. Joseph and Atchison, \$50; from St. Louis, Memphis and New Orleans, \$57.50; from Chicago, \$62.50; from Denver, \$45.00. It is also provided that the journey may be made one way via Portland, Tacoma, Seattle or Vancouver for an additional charge of \$17.50; and via Prince Rupert, near the Alaskan boundary, for \$10.00 additional to cover steamship fare, meals and berth

included, on the 800 miles of Inland Sea from Vancouver to Prince Rupert. Tickets at these rates to San Francisco, will be one sale from March 1st to November 30th, 1915. All tickets will have a return limit of 90 days, not later than December 15th, 1915, thus giving ample time to visit points of interest throughout the Pacific Coast. Liberal stop-over privileges will be granted. We anticipate that other passenger associations will, at an early date, fix 1915 rates to San Francisco for points east of Chicago.

Many organizations are planning for surveys of the Exposition in co-operation with us, so that outlines of exhibits worthy of special study may be printed with convention programs. This will enable delegates to utilize their time to the best advantage, and in many cases reports on exhibits studied will constitute a feature of the convention work.

With low transportation rates assured, with a choice of routes so as to make the trip of constant interest, with ample hotel accommodations at reasonable rates, and with the added attractions of the Exposition, 1915 might well be considered



TWO PROMINENT DELEGATES.

The tallest man (Mr. Thomas Johnson), Inspector, Texas Food Commission, from the largest state in the Union, and (Com. F. A. Jackson), Chairman Food Commission, Rhode Island, the smallest man from the smallest state.

the accepted time for your convention in San Francisco if you are planning to meet on the Pacific Coast at any time within the next ten years.

Trusting that our invitation may receive favorable consideration and that we may have the privilege of welcoming you by the Golden Gate, I am, for the Exposition,

Very truly yours,

CHAS. C. MOORE,
President.

Secy. Allen: I move that the date of the next convention be left to the executive committee.

Seconded.

President Wallis: Those in favor say "Aye"; those opposed "No." The Ayes have it and it is so ordered. If there is no other business before this convention we stand adjourned for one year.

Adjourned sine die.

VISITORS AT PORTLAND CONVENTION.

Andrews, A. B., Portland, Maine.
Bryan, Dr. T. J., and wife, Chicago, Ill.
Barnard, Mrs. Dr. H. E., son and daughter, Indianapolis, Ind.
Brown, C. A., Orono, Maine.
Chittick, Mrs. J. R., Des Moines, Iowa.
Crumbine, Mrs. S. J., Topeka, Kansas.
Clover, Mrs.
Dunn, Charles Wesley, New York, N. Y.
Doolittle, Mrs. R. E., New York, N. Y.
Dabney, Mrs. M.
Dabney, Miss Susan.
Flanders, Mrs. George L., Albany, New York.
Fricke, Mrs. John and child, St. Louis, Mo.
Hortvet, Mrs. Julius, St. Paul, Minn.
Hortvet, Miss Louise, St. Paul, Minn.
Hankey, William F., Cleveland, Ohio.
Howard, Mrs. C. D.
Howard, John.
Hatfield, C. F., Chicago, Ill.
L. T. Jacques, Chicago, Ill.
Johnston, Mrs. Wm. R., Washington, D. C.
Jensen, Miss Katherine, Bozeman, Montana.
Kirk, Mrs. W. C., Chicago, Ill.
King, Mrs. W. F.
King, Miss Elinore.
Ladd, Mrs. E. F., and sister, Fargo, N. D.
Ladd, Miss Clara, Boston, Mass.
Lythgoe, Mrs. H. C., Boston, Mass.
Lythgoe, S. H., Boston, Mass.
McCabe, George P., attorney, Chicago, Ill.
McCormick, Mrs. W. M., Baltimore, Md.
Meyers, Mrs. H. B., Chicago, Ill.
Meyers, Miss Mary, Chicago, Ill.
Meyers, Master Forrest, Chicago, Ill.
Morney, C. B., Buffalo, N. Y.
Newman, Mrs. J. B., Chicago, Ill.
Newton, Mrs. J. B., Chicago, Ill.
Newton, Mr. and Mrs. C. E. M.
Newton, Miss Julia.
Ponites, Mrs. C. A., Ohio.
Palmer, E. L., Portland, Maine.
Runkel, P. S., Monroe, Mich.
Rose, Mrs. R. E., Tallahassee, Fla.
Rose, Miss M., Tallahassee, Fla.
Sullivan, Mrs. Thomas P., and daughters, Chicago.
Shepard, J. H., Fargo, N. D.
Shepard, Miss Adele, Fargo, N. D.
Strickland, Mrs. F. N.
Streckle, Mr. and Mrs. F. E.
Small, Mrs. C. H.
Wallis, James B., Washington, D. C.

Official Proceedings

Section A—Association of State Food and Dairy Executives

President—James Foust of Pennsylvania.
Vice President—A. M. G. Soule of Maine.
Secretary—W. B. Barney of Iowa.

Treasurer—F. A. Jackson of Rhode Island.
Executive Committee—J. W. Helme of Michigan; E. F. Ladd of North Dakota; G. G. Frary of South Dakota.

Section A.—Association of State Food and Dairy Executives.

AFTERNOON SESSION—TUESDAY, JULY 14, 1914.

The meeting was called to order at two p. m., by Mr. James Foust, of Pennsylvania, the President.

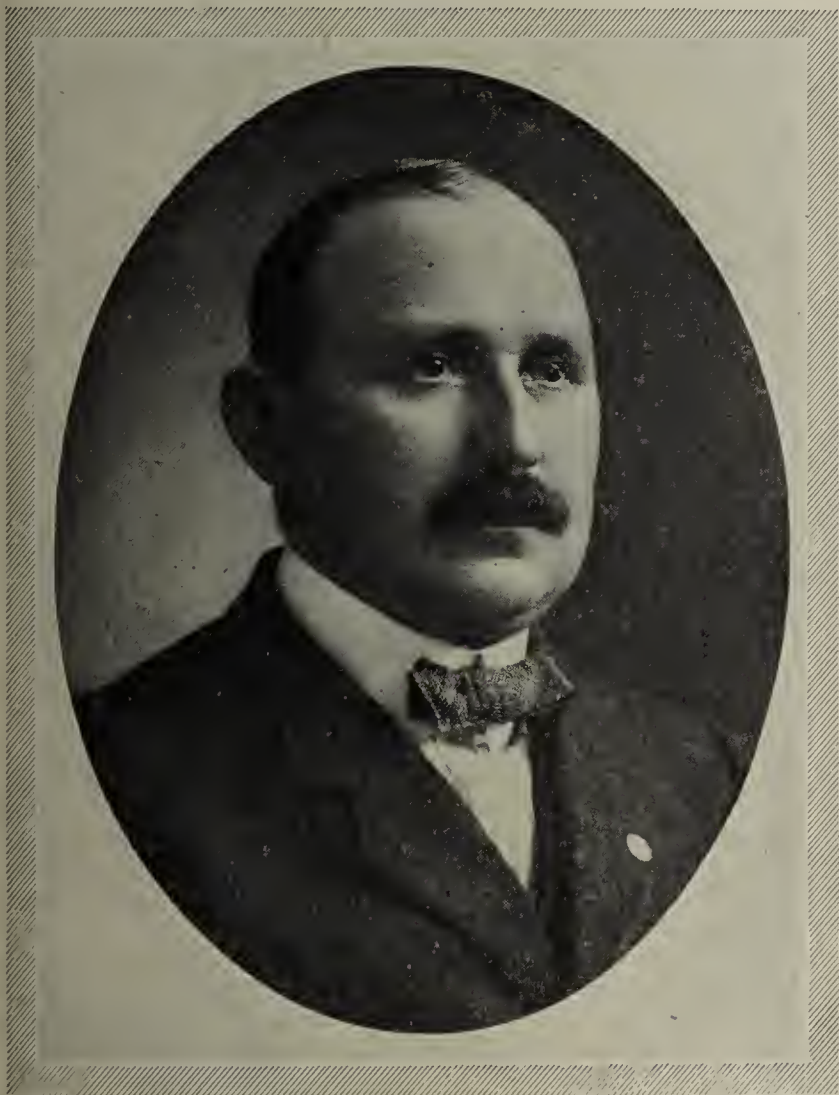
President Foust: The first thing on the program, gentlemen, is the president's address.

ANNUAL ADDRESS OF THE PRESIDENT.

MR. JAMES FOUST.

Gentlemen of the Association of State Food and Dairy Executives:

In a few sentences I shall perform my assigned duty and privilege of formally opening this Fifth Annual Session of the Association of State Food and Dairy Executives, its



MR. JAMES FOUST,
Dairy and Food Commissioner, Pennsylvania.

second meeting as Section "A" of the Association of American Dairy, Food and Drug Officials under the constitution revised at the Seattle meeting in 1912. To those familiar with the variety and difficulties of the food executives' problems, the values of conference such as this will need no explanation. For though we serve different constituents, each with its own body of laws and judicial decisions, and its own local problems, the general characters of our laws are similar, the related decisions show a like range of interpretation, the abuses to be corrected are the same, and the producing and selling interests affected are either connected with organizations of national extent, or guided in many ways by examples set in states other than their own. In the long run, therefore,

our problems are much alike, and the more distinctively executive methods and practices of one state affect the control operations of other states.

It follows that the experiences of each executive contain much that would be of value to all, if properly made known. The executive action may find expression in rulings and in published reports, but the consideration of facts, conditions and opinions underlying the action rarely find such expression; yet these details are of greatest importance to others having to decide the same main question.

This leads me to the point I wish chiefly to urge. The value of our sessions depends upon a proper selection of subjects—such as are of general and immediate interest—and upon their full discussion by all. I trust that the topics listed for consideration at this meeting will interest every one of us. Some of them involve matters that are always subjects of question, either to ourselves or to our administrative superiors and our legislative and public critics; and hence our acquaintances with the changes in practice in other states and the reasons therefor must be kept up to date; others grow out of new judicial decisions gravely affecting the tendencies of interpretation of many state laws. Discuss them, each of you, as his experience may permit, but in words few and to the point—a bullet in the bull's eye. No other method will give us what we are seeking from these meetings. Let our motto be, "Give and Take"—give freely of our best, and take away with us the best that others have given.

President Foust: The next in order is the report of the Secretary, W. B. Barney:

July 14, 1914.

Report of Secretary, Section A., State Food and Dairy Executives.

This section met at Mobile, Ala., June 17, 1913.

Call to order by Vice-President M. A. Jaffa, President Foust being unable to attend. A goodly number of members in attendance.

Subjects were treated in accordance with the program; a large amount of interest manifest.

On motion of a member all the old officers were re-elected for 1914.

Motion to adjourn prevailed.

W. B. BARNEY, Secretary.

President Foust: We will now hear the report of our Treasurer, F. A. Jackson, of Rhode Island:

Portland, Me., July, 1914.

Report of treasurer of Section A., Food and Dairy Executives.

Cash balance, 1913	\$.00
Receipts for year00

Total	\$.00
Expenditures00

Total balance	\$.00
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Respectfully submitted,

FRANK A. JACKSON, Treasurer.

Voted: That the report of the treasurer be accepted and placed on file.

A Delegate: I notice that we had a little printed pamphlet of the proceedings sent to us, and I inquired from one of the officials of this section where the money came from to pay for that and he informed me that he paid for it himself.

President Foust: I desire to say that in going over this program I find that Commissioner Emery is not present, which will cut out his paper; Dr. R. V. Fitz-

Randolph, who is also on this program for Thursday, is also absent, which will cut out paper. That is two hours saved, except that it is my intention to take up the first paper, which is Dr. Ladd's, second Dr. Barnard's, third Hon. George L. Flanders', and then we will jump over to the second paper in tomorrow's program, by Hon. J. H. Wallis. Then Commissioner Brown, of Tennessee, is not here, and that disposes of his paper, then tomorrow we will have to take the place of Commissioner Emery's paper, a Question Box Hour, and I would like every Commissioner here to write down a question, or some problem you meet in your work, either with the trade or with your men, whatever it may be that comes to you—something that you would like to have the opinion of other Commissioners on who meet possibly the same thing in a different way—learn what they do under similar circumstances or conditions. In other words, it will be a Question Box hour, and I trust that every Commissioner, every executive officer, will write questions, and tomorrow we will have them put in a box here at two o'clock, and we will start promptly and take them up. I will assign someone to answer each question.

The first paper on the program this afternoon is, "Publication vs. Prosecutions, As a Means of Abating Food Trade Evils," by Hon. E. F. Ladd, of North Dakota.

A Delegate: Dr. Ladd asked me to state that he would be detained in Section B, for a time, and to ask that you pass him for the present.

President Foust: Dr. Barnard not being present, we will take up the third paper on the program, "The Value of Specialized Counsel in Food Law Prosecutions," by Hon. George L. Flanders, of New York.

THE VALUE OF SPECIALIZED COUNSEL IN FOOD LAW.

HON. GEORGE L. FLANDERS.

This is, of course, meant here to apply to the attorney who represents the people. I find that the word "attorney," as defined in 140 Indiana 284, is the "court's constituency" to aid it in the due administration of justice. It is in this capacity that counsel for the administrative officers of the food law should be considered—that is, for the purpose of assisting the court in the administration of justice, not for the sole purpose of securing a conviction. The justice to be considered by and meted out by the court in which the counsel is to assist is not and should not be variable, but should be the justice provided by the statute—that is the standard of justice for right and wrong to be considered; that which has been defined by the lawmaking power. In order that the counsel may do this wisely he should be well posted, not only in the particular or special statute under which an action may be brought or be pending, but he should also be familiar with fundamental principles underlying such statute. In order that he may be so posted he should be especially interested; he should have that zealotry borne of a desire for a proper application of right principles. In order to do this he must be familiar not only with the statute, but its origin and the necessities therefor. Such counsel will of necessity become one of the leaders of thought along these lines. In order to do this successfully he must confine his studies and thought to a limited realm of law.

To throw a little light upon this statement, let us consider for a moment that which is covered by the broad field of law. The American Law Book Company in publishing its encyclopedia considers law, first under seven subdivisions, namely: person, property, contracts, torts, crimes, remedies and government. These are again subdivided into 430 headings or subjects for consideration. Under each of these headings there is a voluminous amount of law, any of which it would require of the average attorney long and continuous study and much practice in order to become expert. To select gen-

eral practitioners simply because of convenience of locality for consultation and trial work in particular cases may, and probably would, result in such attorney handling a very limited number, not sufficient to become properly imbued with the beneficence of the work, and as a consequence the case would be liable to be handled from the standpoint of the success that would add achievements or laurels to the particular attorney. This is not as desirable as it is that the attorneys shall become specially proficient for the following reasons:

First—Special counsel will be employed more continuously in this work; will observe the results of trials involving food questions by other attorneys so employed, and by exchange of views will naturally reach a consensus of opinion which will be uniform as to the meaning of or proper construction to be placed upon the statute. This will tend to, and ultimately will, make their endeavors along lines of uniformity.

Second—Such endeavors will have a tendency to produce uniform decisions in the courts as to the meaning of the statute—that is, as to what constitutes the justice that is to be meted out.

Third—This will tend to produce uniformity of construction which will be an approximation of uniformity of law within the jurisdiction, and uniformity is what this association has stood for; it was the mainspring of its origin.

In all cases the administration of law must be considered from two standpoints: First, the principles of law involved, and, second, the facts in the case.

To be beaten upon the principles of the law involves a downfall that is of first importance and serious.

To be beaten upon questions of fact is of secondary importance and not serious. It simply means that the administrative officer or his employees have made a mistake or have failed to impress the jury with the correctness of their conclusions of fact.

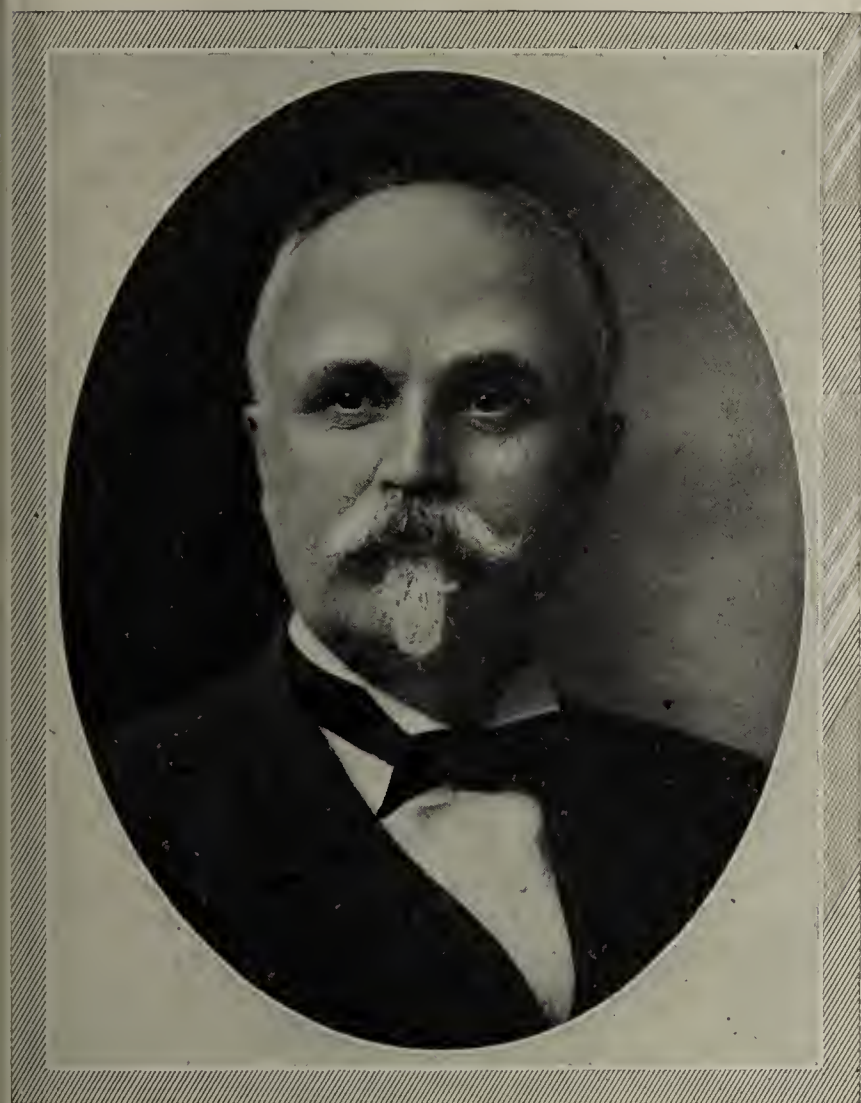
It is my opinion that specialized counsel in this work will be more apt to keep clear the distinction between these questions with a view at all times of upholding right principles, and this reduces the chance of their being sacrificed in order to win in a particular case.

The above are benefits which will be derived in the administration of the law, but beyond this there is a benefit yet to be considered from specialized counsel, namely, such counsel will naturally become interested in the great questions at stake to such an extent as to make them look out beyond the narrow circle which limits their practice to the broad field of what ought to be in order to conserve the rights of the entire public and do justice to all concerned. In this broader field the word "justice" may possibly be differently defined than within its legal conception, for it is in this field that men have to determine, not what is the law but what should be the law. The interest with which he is imbued, the knowledge which he has gained by his experience, equip him to give advice and aid to those seeking to enact laws to prevent evils which have become intolerant to the people. Such advice when wisely given and properly applied to the construction of the statute, for matters in future, should be a great aid in avoiding the pitfalls into which the advocates of new laws often fall, namely, of putting something into the statute that would make it either difficult to enforce or absolutely void because being in conflict with some constitutional provision, either state or national.

As an illustration of things that may be put into the statute to render it difficult to enforce, I will call your attention to one or two things. In a statute which once came under the writer's observation a provision was placed which required the persons taking samples of certain goods to take them in duplicate and at the time of taking to tender and, if accepted, to deliver to the owner or proprietor one of such samples. The original bill had provided that such sample should be delivered to the person apparently in charge. This was changed to the wording above given on the suggestion of an attorney who was not specialized along these lines, the change of wording requiring that the sample be delivered to the owner or proprietor would involve the necessity of the administrative officer proving in court that the person to whom the duplicate sample was delivered was the owner or proprietor, which might involve a question of real estate or ownership of personal property.

Another instance was the case of a bill which provided that no person should sell as and for certified milk any milk which had not been examined by a competent and duly authorized person and pronounced to be free from patho-

genic germs or bacteria. This sounds well as it reads but involves on the part of the plaintiff proving in court that the particular milk had not been so examined and prohibits the retailer selling any that had not been so examined. Under this particular wording a sample of milk which is being sold or certified milk when taken by the inspector and submitted to a test might prove to contain a pathogenic germ and yet the defendant on trial might prove that he had submitted a sample of that particular milk to a bacteriologist who had examined same and pronounced it free from such germs, in which event he would be excused because he was selling it as certified milk upon the certificate of a duly authorized and presumably competent person who declared it to be free from pathogenic germs, the declaration of such a person being a sufficient excuse under such a wording of the statute. The plain, simple wording of such a statute should be that no



HON. GEORGE L. FLANDERS,
Counsel, Department of Agriculture, New York.

person shall sell as and for certified milk any milk containing pathogenic germs or containing other things prohibited.

Many statutes well intended but unhappily worded have been declared unconstitutional. For instance, if it be a state statute, because it provided for the exercise of powers which had been given to the national government to exercise. Or, if it be a power that may be concurrently exercised, then because of its conflict with the national statute. If it be a national act that is sought to be passed, it may be unconstitutional because it is exercising powers not conferred upon the national government, such as relating to purely intra-state questions. These questions and others of a like nature are more apt to receive due consideration by counsel who have made a specialty of studying questions involved in governmental legislation. To avoid such errors in drawing a bill is to save the state much expense, the executive officer much trouble, hard work and humiliation, all of which would be involved in cases where such laws are declared void, to say nothing about the time wasted.

Beyond these difficulties there is still one more realm to be considered, namely, public sentiment. To have a class of men who are sufficiently well posted to apply the proper allaying tonic in the shape of reason and argument necessary to soothe the impatient who fret and chafe under the restraints of constitutional government is simply to be equipped with necessary resourcefulness.

In concluding, let me state that great business corporations and combinations and business houses recognize to the full the value of specialized counsel, as is evidenced by the fact that they each and all employ the same attorneys so continuously that they become specialized in their lines. To my mind the practices of the successful business men of the world in this respect ought to be sufficient evidence of its propriety.

President Foust: Now, gentlemen, this paper opens up, I think, some very nice questions. Some states certify their cases to the Attorney General's department; other states simply institute proceedings and trust to the District Attorney to look after them. Now if the manufacturer has specialized counsel why should not the Commissioner have specialized counsel? Many states have appropriations for employing special counsel, other states have not.

I would suggest that each Commissioner tell the difficulties he encounters in prosecuting successfully the cases that he institutes, and let us see how it is done in the different states—see if we cannot start something here that will promote uniformity in prosecuting our work. We are hearing a great deal about uniformity. Now can't we gain something from more uniformity in the prosecution of our cases? If you have any ice cream cases to institute, I will guarantee that the other side will have specialized counsel, and they may be here to get some pointers from us. Now let us hear how you do your work.

Frank A. Jackson, Commissioner of Rhode Island: Mr. President: I am very glad to hear Mr. Flanders' suggestions about specialized counsel. Our experience in Rhode Island is this: We have to depend on the Attorney General, and we have had one case where he has been so busy that we have waited a year. This means that we never can get him busy on these cases. If we had had specialized counsel the case would have been disposed of months ago. I have worked and prayed for that thing ever since I have been on the Commission. I am in hopes that some day or other Rhode Island may have special counsel.

Dr. Caspari, of Maryland: Mr. President: It might be interesting to those present to know how we handle this question in Maryland. Under the law we are required to send an information to the State's Attorney for the city of Baltimore, or for the various counties; but we have two counsel, a general counsel of the State Board of Health, and a special counsel. I might say in 90, if not in 99 per cent of the cases, the counsel of the State Board of Health assists in the preparation and trial of the cases; so that the man who is best informed in regard to the conditions of our case is present when the case is being tried, either assisting or in some cases trying them himself at the request of the State's Attorney. We have succeeded in getting favorable issue in court simply by reason of that fact. It might perhaps be better if our special counsel could attend every case without the State's Attorney, but we cannot do that. Under the law it must go to the State's Attorney first, and then with the assistance of our special counsel the cases are tried and we find great relief indeed in having those two legal gentlemen with us at all times.

Dr. R. E. Rose, of Florida: Mr. President: Dr. Caspari describes a condition I would be very much pleased to have in Florida. Under the law we have investigations by the Commissioner and the Attorney General. If a case is apparent it is referred to the

District Attorney—the State's Attorney, as we call him—or to the prosecuting attorney of our criminal courts of record. In many cases brought in our court, where the infringement of the law occurs, we find a body of men who are influential, and the local attorney depends upon the voting populace of his county or district for his re-election, and it sometimes is not popular for him to prosecute that case; but unless we get special counsel to assist the state, which is very readily procured if the parties interested are sufficiently influential, we get convictions. And if it happens to be a popular matter, why, the local attorney is very efficient. If it happens to be an unpopular local matter, if the party accused happens to be popular in the district, it is very difficult to get a conviction; and I shall seriously attempt to have special counsel at the next legislature provided for this department to assist the state. As Dr. Caspari says, it will be necessary for the District Attorney or the prosecuting attorney to have this gentleman accepted by the court as the assistant for the state; but we do certainly need specially trained men in these food prosecutions.

Commissioner Frank H. Stadtmueller, of Connecticut: Mr. President: There are 168 towns in our state, and there are 168 different prosecutors bringing their minds to the construction of the law, and we never know when we are going to win a case or when we are going to lose one, and it is all wrong. Without a shadow of doubt we ought to have special counsel. It would do more to create better efficiency in the enforcement of pure food and drugs law than any other one measure.

Commissioner James W. Helme, of Michigan. Mr. Chairman: I will state that I shall ask the legislature of our state to enact a law providing for the appointment of an attorney in the department and have him on the job all the while at a stated salary. I shall do that for this reason: I have found in the prosecution of the department's work that legal questions are constantly coming up, not only in the office but in the field. They have not bothered me much because I am an attorney myself, and whenever there is anything very important I get into the game and try it in the courts personally. I can readily see that the former commissioners who have not been attorneys have been in a precarious position. Legal questions are constantly coming up for construction of the laws where an attorney is needed. Another thing, we have 83 counties in the state and the prosecutions are conducted by the prosecuting attorney of each county. Necessarily each one only has one or two prosecutions perhaps in a year. They are not posted on the subject, we are sort of a foreign department, not of so much local interest, and they do not get posted on the subject. Another thing, we find sometimes, as the gentleman before me has said, that perhaps we are prosecuting a prominent citizen, who is a friend of the prosecuting attorney, and the prosecuting attorney wants to hold back, and sometimes they beat us by continually adjourning the case, adjourning it and adjourning it until we finally get tired out. All this could be avoided, and I shall ask the legislature to make a provision for having an attorney in the department, to be a member of the department, and to prosecute all food cases in the state. I think in the end there will be much gained by it.

Dr. S. J. Crumbine, of Kansas. Mr. President: I would like to ask a question. These are the ideal conditions we are speaking about now. I would like to know what method, if any, might be satisfactorily

used, or has been used, by the other commissioners for securing the co-operation of the local county or district attorney, whatever his title may be, to make him do his duty. What are we going to do for those states who have no special counsel? What are we going to do for the present generation under present conditions? That is the proposition I am up against in various counties. We have co-operation in one county and in an adjacent county we haven't any. That is my problem and I would like to have some of these experts tell me how to handle that. I might say this in answer to my own question: In one particular instance I resorted to the press in a particular county and tried to start a fire under the chair of the county, because of his absolute refusal to do his duty. In that instance it succeeded, but that is a disagreeable operation to say the least. It means a fight on your hands, and you never get any more help from that attorney if you want to bring another case, and it is not a desirable way to proceed, although sometimes we have to resort to it, to extreme measures. Now I would like information as to what we can do for the present generation.

The President: I will just say that in one county in our state I had considerable trouble. I went to the Attorney General. In our practice, which is determined by our constitution, the attorney general can go into any county and set aside the district attorney, or prosecuting attorney, as he is sometimes called. He assumes charge. In this particular case I asked him to write a letter to the district attorney of this particular county, where the bills had been ignored by the grand jury. I stated my opinion of the matter and he wrote a letter requesting that he get permission from the court to send these bills up to the next grand jury, and that if there was any trouble he would go up there himself and take charge of the case. The result was that the bills were sent up to the next grand jury, and we got true bills and pleas of guilty were entered. Now I do not know about your practice in Kansas, but in Pennsylvania the attorney general can go out into any county in that state and assume charge of the prosecution of any criminal cases in the courts. The district attorney of each and every county is in a way a deputy of the attorney general's department, and subject to him. If there is any reason for his going there at any time, he can do so, and take charge of the cases if conditions warrant it. I don't know anything about Kansas rules of practice; possibly Mr. Flanders can give us some light on that.

Dr. Frank J. Jackson, of Rhode Island. Mr. President: While this subject is up for discussion I would like to inquire if any of the commissioners have had the same experience that we have had in Rhode Island, if the laws compel them to give the person a hearing, so that you will have to put all your ammunition in their hands for their attorney. They can appear in person or by attorney. That is one bad condition in Rhode Island.

Dr. Charles Caspari, Jr., of Maryland: We have that same condition in Maryland, but we have no difficulty. We give them a hearing before a special board, which is composed of the general counsel, the executive officer of the State Board of Health and the Commissioner, and the party charged with a violation of the law has an opportunity of appearing in person or by attorney or by letter and making such explanation as he cares to make. This board then forms an opinion as to whether the case shall be recommended to the State

Board of Health for prosecution. If so recommended, it goes to the State Board of Health, and they exercise their judgment and either send it up or retire it as they see fit; but we have a condition somewhat similar to that existing in Pennsylvania; in other words, the attorney general of Maryland is a sort of superior officer of all the district attorneys, and, if the district attorney or State's attorney, as we call him for that county, becomes obstinate we simply notify the attorney general and he applies the necessary means. We have had occasion only once to exercise that power, and with good effect. The attorney general did not go down himself to try the case, but he used his persuasive powers on the district attorney with very good results; so we are fortunately situated that way. Our two men are salaried officers of the State Board of Health, consequently they can devote their whole time to that. If they want to, of course, they are not prohibited from taking outside cases.

Commissioner W. B. Barney, of Iowa. Mr. President: I think our law in Iowa is very much like that in Pennsylvania. We have 99 counties and 99 county attorneys. Now these attorneys do all the work of prosecuting all cases, murder cases and all criminal cases. The great trouble that we have is that they are too apt to elect a man who is not efficient, some young fellow perhaps who is not a good man for any sort of work, he is just getting a start. Now we have a way of getting a little aid for the reason that our attorney general may assist us by sending into a county one of his assistants for an important case, and he frequently does that. Now another way in which I have had reasonably good success: I have at least four or five inspectors on my force that I had just as soon trust in a justice court with a case as I would the average county attorney; they take them and go before the justice court and win as often as the average county attorney does out there, because they know the food and dairy law easily as well as the attorney of ordinary ability, and it shortens up matters. We get action and get results. I am rather in favor though of a special counsel for the department.

President Foust: I am very sorry that the time has arrived to take up the next subject.

Dr. Jackson, of Rhode Island. Mr. President: If I may be allowed just one question. I infer from Dr. Caspari and from your remarks that you feel as though there was no objection to hearings. Dr. Caspari: I think it is a matter of justice to the party as well as to the prosecuting attorney.

Dr. Frank A. Jackson: I feel that way myself.

The President: I want to announce again that the first order of business tomorrow at two o'clock will be the Question Box. Any commissioner who has any question that he desires to submit to this body will kindly reduce it to writing and put it into the box. Tomorrow at two o'clock we will have every question answered by someone assigned for the purpose. I want to ask Commissioner Wallis not to go out of the room as I want to take up his paper this afternoon.

Commissioner James H. Wallis: I won't have it ready this afternoon. I didn't know it would be reached this afternoon, it is at the hotel.

President Foust: Commissioner Brown is not here and Commissioner Emery is not here, and that brings

yours in this afternoon. Just a moment, is Commissioner Strode here?

Commissioner Strode: Yes.

President Foust: Will you kindly take Mr. Wallis' place this afternoon?

Commissioner S. E. Strode: I will be prepared later this afternoon.

President Foust: That will be all right, Commissioner Strode. I want to say just a word before we call on Mr. Ladd. We prosecute our work in Pennsylvania in just the way Commissioner Barney has described. Our agents look after all our cases before the aldermen and justices of the peace. They act as attorneys themselves and we get along very well in most hearings without any counsel. We have special counsel in the trial of all important cases.

The next paper will be, "Publication vs. Prosecution as a Means of Abating Food Trade Evils," by Hon. E. F. Ladd, of North Dakota:

PUBLICATION VS. PROSECUTIONS AS A MEANS OF ABATING FOOD TRADE EVILS.

DR. E. F. LADD, Fargo, N. D.

In general there are two methods for enforcing laws, especially our food, drug and sanitary laws as we now have them upon our statute books. The one method is to assume that every man is wholly familiar with the requirements of the law, and, wherever there is a failure to comply with the law itself, to prosecute the individual as an offender. There are those who advocate this method and who have most successfully enforced the food and other laws of their state by following out this procedure. This course means a large amount of court work, a great deal of energy expended in the collecting of information and data preparatory to making the prosecutions in court, and often a large share of one's energies and thought are taken up in work of this kind.

The other method is more properly called that of publicity and educational work. Laws can be successfully enforced in any community only as far as the people will support them. Therefore, the first and greatest work to be done is that of educating the public or the carrying on of an educational campaign. When the public are educated they will come to demand what is right and a compliance with the law. Through this process of education and publicity the manufacturer and retailer becomes familiar with the requirements and takes steps to comply at all times with every reasonable provision of the statute or regulations made thereunder.

I have found that the one thing the trade dreads above all else is publicity, and publicity is the greatest corrector of evils in food violation as elsewhere. I would not have it understood, however, that all prosecution should be given up for publicity. At times it becomes necessary to prosecute, and prosecute vigorously. It has been the rule in the Food Department of North Dakota to go after the big offenders, but before doing so to be sure of our grounds and be sure that an educational campaign has been carried on so that the public are in sympathy and will support the enforcement of that feature of the law to be dealt with. This course, therefore, means a large amount of personal correspondence with the individual and the offenders or violators of the statute. In the majority of cases I have found (I believe that in 90 per cent of the instances) the violator of the law has been in a measure ignorant of the requirements, or did not know that the product which he was handling was adulterated or misbranded, but as soon as his attention was called to the matter he made the necessary changes to comply with the requirements of the statute.

The cost of prosecution is far greater than that of publication and the work not nearly so effectual through prosecution as through publicity. During the year of 1913 in North Dakota there were but eight prosecutions. This has meant, however, a large amount of work educating the public, publishing the results of analyses, and getting the information before the general public. In North Dakota our methods of publication are of several kinds. The information that goes always, where analysis or inspection has been made, direct to the manufacturer, retailer or the interested party, no matter whether the product is classed as illegal, misbranded, below standard, passed or legal, etc. Then there have been the general addresses given by the Commissioner or others

before conventions, women's clubs, public organizations, and at various places whereby the information could be placed before the public. Again, bulletins are published regularly each month and generally distributed to those interested. Circulars and letters of general information to the trade or some portion of the trade have frequently been prepared and given out, together with rulings to make clear the interpretation placed by the department on the laws, and then the annual report gives a general summary of the work done for the year. One of the most important publications has been that of furnishing, twice each year, to the County Auditor of each county in the state a list of the adulterated and misbranded food products, beverages, etc., as found by analyses and inspection; this list to be published twice during the months of July and January of each year in all of the official county papers of the state. This list is preserved in many a home as a guide to products which are in violation of the statute, and dealers throughout the state have come to look for it so as to inform them of the products which are generally classed as in violation of the food laws. The question has been raised frequently as to whether it is profitable to go to the expense of publishing this list in each of the official county papers. Our experience has been that \$1.00 spent for publication of this list means at least \$10.00 saved in court prosecutions for each county, to say nothing of energy saved to other purposes. It is, therefore, an economic proposition as well as an educational one that publication has been adopted as a means of enforcing the food law. At the same time the educational work has tended to bring to the support of the department the good will of the people of the state and of the various organizations, clubs, federations, etc., that have come to be interested in work of this kind and in many instances are making a special study of some phase of the work, as for example, at the present time many of the women's clubs of the state are studying slaughterhouses, meat markets, the handling of meats, also bakeries and bakery products, and have included these topics as a part of their course in the official program as their department studies for the present year, under the division of public health.

Whichever the means adopted for the enforcement of the food and sanitary inspection laws, one of the first essentials is to have the support of public sentiment, and I know of no means whereby the support of all parties generally interested in better things for the state can be secured than through publication of trade evils and the placing of the full information before the public, in order that they may know what is to be done and the reasons why the work is to be undertaken. And, further, when laws have been found defective or not far-reaching enough, publication has been a first necessity to inform the public and let them know why the change is desired and needed, and the people have then stood ready to aid in securing the enactment of other laws to remedy or to prevent existing evils.

After thirteen years of experience in food work and in looking back over the past, reviewing the conditions and methods, I feel more strongly than ever that success becomes most assured to him who takes the public fully into his confidence; is honest and straightforward with the public in keeping them informed, giving personal attention to their needs; aids at all times the dealers or manufacturers in getting their business on a basis to comply with the spirit of the food law; uses tact and good judgment; but through it all stands firm for what is right in the great underlying principles of right and justice and never hesitates to fight crooked methods wherever found. For, while enemies will be made, unlooked for friends will arise to more than fill the ranks because of those who differed with you and departed from your support. Therefore, after these years of experience, were I to begin again, or advise one who is starting in the food work as to the policy to be followed, I would only the more strongly than ever reiterate what has already been said as to the method to be followed; to use, to the fullest possible extent, the method of publication, education and personal work with the retail dealer and manufacturer instead of resorting to prosecutions as a means of abating food trade evils. I would not hesitate to make prosecutions against willful violators of the law and to fight bitterly against those who would overthrow the underlying principles of success and protection of the public welfare.

President Foust: This paper is now open for general discussion.

Commissioner R. M. Allen, of Kentucky. Mr. President: All of this work, to my mind, is very much like

medicine. Some few weeks ago I sprained my leg and I went to a man who told me about the evil of drugs and that I had better have a little osteopathic treatment. The man, of course, believed this the only method of treating. And I finally used arnica and witch hazel, and I think that had something to do with getting my foot back on the ground again. In all of these matters it is a question not of the choice of means but the use of all the means that may be available, may be necessary at that particular time. The department not only needs special counsel and should have one, but it should make an effort to enlist the interest of all the prosecuting attorneys of the state. I don't believe that a special counsel who neglects that duty will have the success that he would have if he kept himself in the background frequently and after preparing his case should put it in the hands of local counsel or commonwealth attorney to back him up with his local prestige, local knowledge of the courts, local knowledge of the defendant, and so on. Now when it comes to publicity fairly directed, it is by all odds the most effectual weapon we have in contending with food adulteration. We are having a very interesting experiment in Lexington with our milk supply. Cornell tried it several years ago, and finally reached the conclusion that they did not have much success in bringing Ithaca's milk supply to the basis that they hoped to bring it through the publication of scores. We started a couple of years ago in Lexington to publish bacteriological counts. The first thing is to teach a dairyman how to control bacteriological counts. Now that little chart which some of you heard explained last year, is published every month without charge in the newspapers, provided the city furnishes the cut. It shows the relative rank of each of these dairymen with respect to the bacteriological count, and that has had more influence in producing what I unquestionably believe is the best milk supply of any city of its size in the world than anything else. That has been one of the means, not all the means, but has been one of the means of accomplishing that result. We want to give the facts to the public. I mentioned this morning that you cannot get slaughter house work started until you secure the facts and publish them. We do not feel that publication or prosecution or any of these means are the only remedy; they are all remedies and they are all necessary and all must be brought together. As an official with some fourteen years' experience, every year brings me more and more to the educational side of the work. Every year brings into my mind the problem, the underlying problem and the desire to get at it. I was going through our letters last year, and the chief clerk of the office said we had about eighteen thousand letters during the year's work. I asked how many of those letters were replies from the public and trade generally, and I found more than a third of them. So through letter writing and educational methods and publicity the commissioner is going to find the best means of enforcing the law. Now just going back one minute to the question of county and commonwealth attorneys: I would say to Dr. Crumbine, "Pack your grip, and go to that attorney who has not taken much interest, and convince him if you can." The first to convince is the trade. If you can convince the manufacturer or his agent who comes into your office that you are right, nine times out of ten it is unnecessary to convince the court and jury. The next step is to convince your commonwealth and county and city attorney. Go to them with the facts

and then go to him with a well prepared case. I rather suspect that all of you would find in your trouble that your case is not well prepared. There is some little flaw in the evidence somewhere, either so far as the inspector is concerned, or so far as the chemist is concerned. All of these are simply a choice of means and publicity on a fair basis is one of the most effective means of accomplishing the result.

The President: If there is nothing further we will take up the next paper, I see Dr. Barnard is here. It is, "Round Table: The Supreme Court Decision in the Bleached Flour Case. Its Bearing Upon the Forms of State Legislation."

THE SUPREME COURT DECISION IN THE BLEACHED FLOUR CASE—ITS BEARING UPON THE FORMS OF STATE LEGISLATION.

DR. H. E. BARNARD.

In the establishment of a principle tremendous effort may be expended. Things trivial in themselves may be magnified until the whole horizon is obscured. Immense wagers may be staked upon the decision of a court. So it was in the whisky case. I doubt if any food commissioner was greatly interested in the technic of whisky manufacture. They were interested only in the application of an honest label to an honest product. In the hard fought benzoate case the contention was not that a trace of benzoic acid in a glass of soda water was injurious to health, but the larger proposition that the manufacturer should not be encouraged to substitute be zoate of soda for a careful selection of raw material and cleanly manufacture.

The bleached flour case, one phase of which has been adjudicated by the Supreme Court of the United States, is to my mind a similar magnification of a rather technical point and the opinion on that point as finally handed down appeared on first reading of immense importance in food control work. I am wholly out of sympathy with the idea expressed by some biased individuals that the decision of the Court of Appeals and of the Supreme Court in the bleached flour case will put a quietus forever on what they choose to designate "a race of wind-jamming would-be reformers who represent no interest but their own craving for notoriety and whose pernicious activity has cost the public and particularly manufacturers and purveyors of food thousands of dollars without one particle of good inuring to the consuming public in return."

I cannot believe that the Government officials who brought and fought the now famous bleached flour case had any purpose in view other than the determination of the ability of the Government to protect its citizens from what these officials believed to be fraudulent and injurious practices, nor that the honest miller has suffered financial loss because he stopped bleaching during the years the case was before the courts. Surely the baker and consumer did not lose anything because they bought flour of natural hue instead of the sickly whiteness of the bleached wheat. If anyone lost thousands of dollars it was the owners of the patents on bleaching processes and as food officials we are hardly concerned with their troubles. Moreover it was well to air the practice of bleaching. If it is an honorable practice no harm can come to the full discussion of its effects. If it is an injurious practice, though not so proveable in the courts, the consumer should not be denied the opportunity to choose between a safe and dubious flour. And today when the miller says "we do not bleach," the housewife knows whereof he speaks. As a matter of fact, I do not find that the decision of the United States Supreme Court in the bleached flour case was radical or all important, but on the contrary it was simply a declaration of the clear language of the law. The decision reiterates what the law itself says in words that are hardly susceptible of more than one interpretation.

The Federal Food and Drugs Act, among other definitions of adulteration, contains the following: "If it contains any added poisonous or other added deleterious ingredients which may render such article injurious to health." Obviously under this provision the use of bleach is not an adulteration (always provided it is not used to conceal defects) unless it is used in sufficient quantity to injure the health. The Missouri court held that the use of any quantity of a poisonous substance was an adulteration, without regard to whether it

made the article injurious or not. It is difficult to see how it could have done this in the face of the clear language of the law, and Supreme Court said it was error. In its decision it merely declared that under the law the quantity used was the controlling factor, and as stated, this is no departure from anything that has not been generally known and understood.

Of course, there is another phase of the flour bleaching case which has not yet been decided. If bleach was used to conceal defects, it is an adulteration regardless of quantity. The court below heard evidence as to whether it was used to conceal defects, but the Supreme Court rules that the evidence on which it decided the case was not sufficient.

The law of this and all other similar cases is this: If a foreign ingredient is used to conceal defects, and this deceives the buyer as to damage or inferiority, there is adulteration regardless of any question of quantity or harmfulness. If the foreign ingredient is used merely to improve appearance, as in the case of color in butter, then there is no adulteration unless enough of the foreign ingredient is used to injure the health.

The decision does not in any degree alter the situation as it existed before it was handed down, either under Federal or state laws.

The Supreme Court decision is not at all to the effect that Congress may not prohibit the addition of any foreign ingredients to food, it is simply a declaration that Congress has not yet done so. To my mind there is another angle to the bleached flour case which is quite as vital an issue in the enforcement of pure food laws as the addition of a deleterious ingredient, and that is, the use of a substance as, for instance, the oxides of nitrogen in the bleaching of flours, to make one substance or product look like another of better grade or reputation. It is to be hoped that if the case is retried the question of the use of bleach in flour may be adjudicated upon the broad principle that no flour miller has the right to bleach his goods to make them whiter or apparently of better quality than they really are:

In Indiana we have held from the time of the passage of our pure food law that the miller who bleached flour should label his product. That he has done. The public has bought bleached flour knowing it to be bleached or it has read the label and sought another brand. The verdict of the Supreme Court in no way alters the situation in our state. We have not, nor shall we, modify our ruling requiring bleached flour to be so labeled.

Immediately following the verdict there arose from many sources an insistent demand that the pure food law be amended by striking out from the paragraph in question the words "which may render such article injurious to health." This would seem to be a reasonable and perhaps desirable amendment, for I think it may be taken as a basic principle in pure food legislation that the consumer is to be protected against the addition of poisonous or deleterious substances to his food no matter whether it is possible to prove in the court that the added substance is harmful or harmless. In other words I believe we do well to hold that it is the duty of the manufacturer himself to determine that the ingredients he uses in his products are non-injurious rather than to make use of additions in such quantities that it is difficult to demonstrate whether or not they may or may not be injurious, and when such demonstration can never be accomplished except at great cost and after years of effort.

It ought not to be necessary for food officials themselves to employ experts to determine facts the manufacturer should have in hand before he undertakes the manufacture of his product. There can be nothing radical in this suggestion, for I do not believe that today any food manufacturer is willing to buy chemicals or use products solely upon the suggestion and recommendation of someone who has something to sell. No meat packer today would be willing to use borax upon the recommendation of an agent of the borax industry, nor is any bottler convinced of the virtues of saccharin solely by the representation of a salesman for that sickening substance.

It is not wise to be disheartened by Supreme Court rulings. If our laws will not stand the test of the judgment of our highest court there must be something the matter with the law. I am not prepared to believe that any court will weigh dollars and cents against the public health. I have always found that on public health propositions the courts interpret the law most liberally, and that in such cases more than in any other they will tear away red tape and refuse to be bound by hampering and dangerous decisions. Court decisions are of the greatest value not only when they support our work but quite as much when they point out organic defects in the law. If the Supreme Court finds that under the law

the quantity of bleach used is the controlling factor our laws must be revamped if indeed we wish to prohibit additions in any quantity, however small. The Pure Food Law is still on the statute books, and in spite of its many weaknesses has a tremendous power for good and the defects in the operation of the law, as with any law, are not so much defects in phraseology as lack of will and ability to enforce it, and I am confident that neither food officials nor manufacturers will admit that there has ever been any evidence of any negligence in this regard on the part of officials directly charged with its enforcement.

President Foust: This paper is now open for general discussion.

Commissioner R. M. Allen, of Kentucky. Mr. President: I owe an apology for being on my feet again. The United States Circuit Court of Appeals in passing on the case as reported from Kansas City, held this: That the addition of a chemical to a food substance formed a chemical compound under the act. Now in everything as far as the Federal law is concerned the department has full authority, not only full authority, but it is its plain duty under the decision of the United States Circuit Court of Appeals to require labeling of flour bleached by oxide of nitrogen or with other bleaching agents, because of the fact that a chemical compound or a chemical union has been formed in the flour itself, and I would like to add that thought to what Commissioner Barnard has read. We seem to be of the opinion that the Supreme Court left us without any law on bleached flour. That is all wrong. The United States Circuit Court of Appeals decision was not overturned, and it leaves full, broad authority with the National Department to require the labeling of this flour; and I hope the time will come when it will exercise its duty in that respect. The United States Circuit Court of Appeals went further too, and said that there was evidence on the part of the government that the bleaching affected the quality and strength of the flour, and under that section of the act, under the section which says if any substance be added so as to produce an injurious effect upon the quality or strength, this flour bleached with these substances shall be required to be labeled; and I believe it would be a happy solution, I won't say a happy solution, but I believe it would be a good solution of the question today, while we are considering this never-to-be-settled question as to when a thing does or does not, to label it and let the American consumer be the referee board, as in Indiana, whether bleached or not bleached.

President Foust: Has anyone else anything to say?

Commissioner Guy G. Frary, of South Dakota. Mr. President: I would like to say that after this decision came out in February requiring the labeling of bleached flour. I issued a ruling requiring all bleached flour to be clearly labeled to show that it was bleached. There was much favorable comment and it seemed to me that was the only thing to do in view of this decision. But there is another question brought up by the decision of the Court of Appeals in the Coca-Cola case reported in the July number of the AMERICAN FOOD JOURNAL. I presume all the attorneys have read this. It seems to me that if the opinion of the judge here should be sustained it will change quite materially the aspect of the food law. The judge, in reviewing the case here, says: "If there was nothing in the body of the act expressly prohibiting the sale of deleterious food, qua deleterious, this title would furnish some reason for expanding in that direction any terms of prohibition there might be, ambiguous enough to permit the implication; but

we find in section 11, which relates solely to importations from foreign countries, and express direction that such importation shall be wholly forbidden if the food is adulterated or misbranded or is otherwise dangerous to the health of the people of the United States. We have, therefore, a provision which responds to the call of the title in this particular and makes it unnecessary to resort to any otherwise unjustifiable construction for the mere purpose of giving some effect to all parts of the title. With the exception of this clause of section 11, every other directly or indirectly prohibitory clause of the act relates to articles which carry the taint of deception and fraud by being adulterated or misbranded." Now then it seems to me that that statement is a little too broad; it is not deception and fraud in every case of misbranding. I don't see how that all cases can be considered exactly deception or fraud; but I would like to hear some opinions from the attorneys and the court's rulings in other instances.

President Foust: Is there anything further?

Mr. George L. Flanders, of New York. Mr. President: I am not going to undertake to discuss the Coca-Cola case at length, or all these bleached flour cases. I would like to state a point or two, just to show that what the gentleman referred to in the opinion of the court is clearly obiter dicta, a matter lightly alluded to by the judge, but not within the province of the thing settled. Often they say things that do not go to the gist of the decision. They frequently decide a thing, and then say it is not necessary for the court to pass on that question here; but in the pure food law you find this question running all through it, first, that they shall prohibit the sale of anything deleterious or harmful, absolutely prohibit it. But the law defines adulteration. Mixing maple syrup and cane syrup together is an adulteration. Mixing maple syrup and cane syrup together is an adulteration; mixing two absolutely innocent products and producing a third one that is absolutely harmless in every respect is still an adulterated product. Still they say further along that if it contains nothing deleterious or harmful, it shall not be deemed to be adulterated or misbranded in the following cases, then they enumerate the cases and make exceptions. Now in the United States statute referred to by Dr. Barnard that particular clause he read was a matter of much discussion at the pure food congresses at Washington, I think in 1901-2-3 and 4. I don't know whether Dr. Barnard was there or not, I was. I was at all those congresses, and I remember distinctly the questions relative to the prohibiting of putting into food products substances, the nature of which in essence is harmful. And there was cited there that the essential principle of vinegar, acetic acid, was absolutely poisonous. The same is true of cinnamon, horse radish, and a hundred and one other things that may be named. It was said there that this would shut out condiments. This was discussed at length at that convention, and they said, "No, we can't do it, but we will say, if you add anything to a food product that will render it harmful, put anything into a food product which may render it harmful, then you have violated the statute and the thing that the court said under the wording of this statute was, you don't have to prove that it will render the finished product harmful simply that it may render it harmful."

Now I may be alone in the ground that I am going to announce; but I stand here today just as firmly con-

vinced as I was in 1901, 2 and 3, that we should not amend that law to say that a substance that of itself may have harmful elements must not be allowed. I think we should take the ground that Congress does. Bacteriologists, chemists and business men in every state in the Union have reached the conclusion that the thing to do is to prohibit putting into a food product [not only that which is harmful, but] that which may render the product harmful. Now is that asking too much of the prosecution, to prove a thing of that kind before it has a right to interfere? I am open to conviction. The Food Congress was not rapid, for four years—three at least—it gathered in Washington and spent a week's time, deliberated upon the questions and that was the final consensus of opinion for exactly the same reasons, as I understand. I think we ought to be careful not to be too hasty to upset a certain proposition. Now what has the Supreme Court done? Nothing at all in this case except to decide what the law is on that particular point, what we must prove in order to establish a case.

President Foust: Regarding this paper of Dr. Barnard's I will just say that I know of two states where flour cannot be sold if it is bleached and shows the presence of nitrous acid or nitrites; one is North Dakota, the other is Pennsylvania. Our legislature saw fit to specifically prohibit it. It is the duty of the commissioner to administer the law and enforce it. The legislature and the Supreme Court of Pennsylvania, in an unanimous opinion, have settled that question there, disagreeing entirely with our worthy Commissioner Flanders, of New York, and in our state no food product can contain any substance which in itself is deleterious to health, and I heartily endorse the position of our Supreme Court.

We will now pass over to a paper by Commissioner Strode, of Ohio. "The Value of Specific Laws Dealing With Special Commodities":

THE VALUE OF SPECIFIC LAWS DEALING WITH SPECIAL COMMODITIES.

MR. SYLVANUS E. STRODE.

Value is relative, not absolute, and is determined only by comparisons. Specific laws are restricted in their application to the commodities named in the acts. General pure food laws are universal in their application, being based upon well known principles of purity and embracing in negative form all methods of adulteration and misbranding.

Three years' experience in the enforcement of each leads the writer to place a greater value upon the general pure food law than upon the specific, which view is a complete reversal of his former opinion.

The specific law is too narrow in its application to take care of constantly changing and unforeseen conditions.

The specific food law fixing minimum standards places a premium upon adulteration and is an invitation to indulge in the same through standardization of the product on the minimum basis named in the law.

Courts will not convict under a general law, when the defendant has complied with the terms of a more lenient specific law covering the points in question.

A specific law fixing chemical standards is especially vicious, because it furnishes the sophisticator specifications for his artificial product. Specific laws to be sufficiently definite to be effective usually lose their effect in the wilderness of necessary detail.

Specific laws that undertake to cover ground worth while in the field of adulteration, misbranding and insanitary conditions, would be so numerous as to obscure themselves by mere numbers and would be objectionable because of the resulting encumbrance of the statute books.

Specific laws dealing with special commodities are much more difficult to secure than general laws. Bills for specific laws seem veritable targets for drawing the fire of the industries affected. This too often results in a compromise law sat-

isfactory neither to the food department nor the interests involved, which hybrid often places the enforcing official in an embarrassing position, with the alternative of enforcing a ridiculous or unjust law or ignoring it altogether in violation of his sacred oath.

On the whole, I am of the opinion that food departments, state and national, should discourage the enactment of specific laws dealing with special commodities and depend more and more upon general laws based upon recognized principles of purity and prohibiting in general terms the usual and known methods of adulteration, misbranding and common causes of insanitary conditions, and encourage the lodging of authority by statute with some responsible board, commission or official to make rules, regulations, or even create standards under the general law, all to be in harmony with the same.

These rules, regulations and standards have an advantage in the fact that they can be made or changed as conditions warrant by qualified officials, after conferences and hearings, without waiting for legislative action or subjecting them to the perils of defeat or emasculation incident thereto.

President Foust: Dr. Barnard has an announcement to make.

Dr. H. E. Barnard: The American Can Company wishes to extend a cordial invitation to all delegates to this convention, including visitors, their wives and families, to a theater party at the Jefferson Theater tomorrow night, the 15th instant. Tickets will be distributed tomorrow afternoon at the adjoining smoking room, and if any names of ladies and friends have not been handed in, if they are not shown on the list made out yesterday afternoon, please leave their names at the desk here so that tickets will be provided for all.

The President: We will now hear from anyone who desires to say anything with reference to Commissioner Strode's paper. I will ask Commissioner Wallis to open the discussion of this paper.

Commissioner James H. Wallis: In reference to the enactment of legislation covering our work, I am in favor of avoiding, so far as possible, any special legislation. I think that the Food and Drug Act of the state, like the Food and Drug Act of the United States, should be sufficient for our work, and that the more special legislation we have with reference to the enforcement of these laws only confuses our work. I believe that the additional legislation should come in the form of amendments to our laws rather than in the enactment of special legislation; and therefore I stand on the ground that the less legislation we have of a special nature, the better we are off as executives in enforcing these laws.

Commissioner W. B. Barney: I want to say that as a general proposition I am not in favor of special laws or specific laws; but there are frequently times when you have to have something of that kind. Now when I took charge of the department in Iowa, what did I find? I found that our former commissioner had been making rulings on ice cream. I will just cite this as a case, and what had happened? We had had all kinds of ice cream, and I found it necessary to do something; and we asked the legislature to enact a standard on ice cream—give us an ice cream law. They did, and I want to say to you that it is one of the best things we have ever had, one of the best laws we have ever enacted to protect the public and the honest manufacturer against the short change artist that gets into the ice cream business. And under conditions of that kind I want to say that I am absolutely in favor of specific laws.

Commissioner Jas. W. Helme, of Michigan. Mr. President: I do not believe in having any more special laws than you have to; but at the same time there are some things that cannot be handled by the regular food law in any way that I know of, or, by amending it.

excuse me for repeating personal reminiscences. At the last stage a gentleman came down and said: "The bills are now in the committee on"—I forget the name of the committee, but where you cannot pass them, if there is a single objection," and a certain senator says that he shall object to this bill if you do not take the misdemeanor clause out, what shall I do about it, take it out?" "Well, take it out." Three or four months later a lawyer informed me that the man who drew that bill didn't know enough to draw a bill, didn't make it a misdemeanor. We have all sorts of things like that. My impression is that when you have once reared the trunk of the tree, which is the food question, the best thing to do is to put on the limbs, one after the other, and let your general penalties apply all the way through, and the same principles will be involved all the way through in applying the law.

Commissioner J. W. Helme: How would you handle maple syrup under the general law?

Mr. Geo. L. Flanders: If maple syrup is sold as maple syrup it is a simple commodity. It is not an adulteration in any sense and we cannot handle it under any statute. If you mix anything with it, it becomes at that moment, under the definition of adulteration in our food law, an adulterated product. Now the fact that it is adulterated brings it under the prohibition, the first one, that prohibits the sale of an adulterated food product; and in order for the man who wants to sell it to do so he must show that it comes within the exception in the statute, to wit, that the substance contains nothing harmful; he must plainly label it to show what it is.

Commissioner J. W. Helme: What would you do when mixed with cane syrup?

Mr. Geo. L. Flanders: If mixed with cane syrup, I would say—syrup composed of maple and cane.

Commissioner J. W. Helme: That is just exactly the point I want to bring out. Under your general food law you can do that; but where a man has five per cent of maple syrup and ninety-five per cent of sugar and has the same label, what then? Would that be a false label?

Mr. Geo. L. Flanders: Mr. President: In answer to that question, let me say this: I don't know what your special statutes do. Our president brought out that in Pennsylvania and Dakota they had certain things. As a matter of fact each state is a law unto itself. I would not care to say what Missouri should do or what Michigan should do. I will say what New York has done. You know what Michigan has done. New York has not required the percentages on any food product to be given. We do not require any label to state this. The theory of the law is that if it is a mixture that may be sold at all, it may be sold by simply naming the ingredients, irrespective of the quantity.

Commissioner J. W. Helme: Is it fair to the consumer to put in one per cent maple sugar and ninety-nine per cent cane, and call it a mixture of cane and maple sugar? That isn't fair to your manufacturer who makes it half and half. It is just the same with sausage and cereal in our state until we were finally getting down to about one per cent meat in the sausage. I don't understand that under the pure food law you can compel them to name the percentages. That is where I claim that a specific law is a better thing for the consumer. The consumer cannot understand anything by telling him that it is a mixture of maple and cane.

Mr. Flanders: Wouldn't it be just as well, to name

One of the things that comes up with us very frequently in Michigan is maple sugar, maple syrup. We are large manufacturers of maple syrup but the cutting down of our maple forests has decreased the supply and consequently the syrup has got high in price there is a lot of adulteration. How are you going to handle a mixture of maple syrup and cane syrup except by a specific law? I can't see how you are going to do it. Take the question of cereal sausage: It got to the point where we analyzed samples and found we had sixty-five per cent water and cereal. How are you going to handle this under the general law? You have got to handle that under a specific law. Same way with the ice cream, as Commissioner Barney has stated. We have an ice cream law that provides what they can put in ice cream, and what standard it shall be, and it is working well, and has worked well with us.

Take the questions that come up to you, as my brother from Minnesota can testify, various questions come up about the creameries and their centralization, the use of bad cream, old cream and the transportation of it, the use of deodorizers in it, and the discrimination between each other in the buying of it. All these things cannot be handled under the general food law or any amendment to it that I know of. They have got to be handled by specific law. I don't want any more specific laws than we have to have, but there are a lot of questions that must be handled by special laws. Take for instance linseed oil. How are you going to handle that matter under the general law, adulteration law or the drug law? I can't see any way. The United States is seeking now a specific law to cover linseed oil. I don't want any more laws than we have to have, but I want all we do need.

Mr. George L. Flanders: We have a maple syrup law in New York State passed before our so-called pure food law—guess I better say food law, I don't know what pure means—there is pure arsenic. Our maple syrup law provides that no substance shall be sold as and for maple syrup that is mixed with any other syrup, but it may be sold as and for what it is labeled to show, what it is. Now if we didn't have that maple syrup law, we could do the same thing under our food law. As to the ice cream proposition, we would be a little more in the dark. I don't know as I had better talk much about that, but ice cream has been known for a long while under that particular name. That is why I think we ought to have a special statute defining what it is; but as a rule my experience is this: Most anything where we have a standard, except the standard for milk, where we have special laws, we could handle as well under the food law. If it is a mixture, compound or blend that is not harmful, it can be sold, if labeled for what it is. There are one or two cases where the special laws do not require that labeling, but that is not so good; but here is the difficulty I find with a special statute; for instance, under our general statute we have a section that provides that any person violating any provision of the law shall forfeit to the State of New York for the first violation not exceeding fifty dollars, and for every subsequent violation a sum not exceeding two hundred dollars. Every time you get a special statute you get special penalties; and then the question arises in court whether the general penalty applies or whether the special penalty applies, or whether one repeals the other. To illustrate how those things may happen: I remember one time I had drawn a bill to introduce in the legislature of New York—

the constituents and percentages in an amendment as in a special statute?

Commissioner S. E. Strode. Mr. Chairman: I see no reason why matters of that kind could not be handled by the general law requiring all mixtures and compounds to carry the percentage, and then you are not only taking care of the syrup proposition, but all other propositions involved.

Commissioner Guy G. Frary: Mr. Chairman: We have in our state sanitary law passed by the last legislature, which is very broad, so broad that the attorney general has told me that it was not desirable to bring any cases under it because he could not get a conviction. In contradistinction to that, Iowa has a sanitary law which is extremely specific, and goes into details in every instance; and I would like to ask if there are states which have amendments to the general food laws covering sanitation which are specific. Only three or four states, of which I think Maine is one, have such a law and I would like to know if there are others. Our law provides that I shall make regulations, and I have made them.

President Foust: I desire to say that in Pennsylvania we have fourteen food laws. We have thirteen special laws dealing with special commodities or classes of commodities. After the big fight up in Michigan on the sausage question, we got busy and our legislature enacted a very good sausage law. We prohibit moisture in excess of that which the meat contains immediately after slaughter, then we prohibit cereal, coal tar colors and so on. We have a penalty of from one hundred to one thousand dollars for a violation of this law. Then we have a rotten egg act which prohibits the sale of eggs which are decayed—partly decayed or decomposed. The penalty is from two hundred to a thousand dollars, or from three to nine months in jail, or both, at the discretion of the court. For selling watered milk we have another one. Our penalty is only twenty-five dollars to fifty dollars where formaldehyde, boric acid or other chemicals are used in milk. We have still another milk act, the penalty there being from fifty to one hundred dollars. For vinegar still another, fifty dollars to a hundred for the violation of it. Then we have a non-alcoholic drink act, and the penalty there is from twenty-five to fifty dollars. The oleomargarine law penalty is five hundred to a thousand dollars, that of the renovated butter law is from one hundred to five hundred dollars for the first conviction and from five hundred to a thousand dollars for the second conviction. We have a fruit syrup act, penalty fifty to one hundred dollars, a fresh meat and game, fresh fish and shell fish act and so on. We have all these and we really need more. I believe in special acts covering special commodities and classes of commodities.

Dr. H. E. Barnard: I would like to ask the President if the convicted offenders in Pennsylvania lay out their fines, or do they pay them?

The President: When we convict them they pay them, and every time the legislature meets we get new laws reaching out to lines that our present laws do not cover. I was asked the other day by the Adjutant General of our state why it was that with the work we were doing, we were each year prosecuting more people. Well, I had to give some explanation. I told him our chemists were now able to take up things that a few years ago they were unable to establish to the

satisfaction of our courts and ourselves in a way that justified us in prosecuting; that was one reason. Another reason was that each legislature gave us special laws dealing with special commodities or classes of commodities. I explained to him the number of cases we had under our milk act fixing a standard of $3\frac{1}{4}$ fat and 12 for solids. Now, I said, we had between 400 and 500 prosecutions last year under that one special act which we didn't have prior to the last legislature. He said, "That explains it." Then I told him about our sausage act that was passed and how many we had under that which we did not use to have, and that was why we had more prosecutions than we had years ago. We are not buying any more samples, but our agents are exercising more skill in selecting what they buy. Another thing, we hold conferences, and we compare notes, and find out what is right and what is wrong and in that way we are weeding out useless work. We are not wasting the state's money in analyzing stuff that we know is right. We are hunting up new things that we know nothing about and analyzing the things that we think maybe are wrong, and in that way we are doing more effective work, and we are getting things into very good shape in our state. We have no trouble in convicting; we win 98 per cent of our cases and lose only about two per cent, and we are getting those who are convicted sentenced.

Commissioner J. W. Helme. Mr. President: You spoke a moment ago about an act in Pennsylvania fixing the fine in the case of renovated butter. On what is that based; on the labeling of renovated butter?

President Foust: Yes, first the dealer, the seller, must have a license—we have a license feature there—the retailer pays one hundred dollars, hotel or restaurant keeper a license of fifty dollars and must put placards up in the dining room. Any violation of any of these provisions subjects the violator to a penalty of from one hundred dollars for the first offense, and from five hundred to a thousand dollars for the second offense, or imprisonment, or both, in the discretion of the court.

Dr. S. J. Crumbine: If he announces the fact that he sells renovated butter, then what?

President Foust: He must have a license first.

Dr. S. J. Crumbine: We have a similar feature as to labeling, but we issue no licenses.

Commissioner from Connecticut: I would like to take a moment to inquire whether you allow interchangeability in the use of the term "process butter" and "renovated butter," or must it be labeled absolutely renovated butter?

President Foust: Our law deals with "renovated" and "process" as one and the same thing.

Commissioner from Connecticut: You recognize the terms as being synonymous?

President Foust: Yes, sir, but then the package must be labeled "renovated butter." The law deals with process butter and renovated butter as the same thing.

Commissioner Stadtmueller of Connecticut: Yes, but you require the appearance of the word "Renovated" on the package?

President Foust: We do, yes, sir; our law requires that.

I am going to switch our program again. It is now five minutes after four according to my time; we don't have to leave here until five o'clock. I do this for the purpose of getting along, as suggested or requested by the president, Mr. Wallis. I would like now, instead of tomorrow, to put in forty minutes on the

Question Box. Instead of passing the Question Box, let the questions be announced. If anyone has a question, just announce it. If you want some information, ask it, and I will assign someone to give it. Let us switch over to that part of the program for the next forty-five or fifty minutes. Who has the first question on which information is desired?

Dr. H. E. Barnard. Mr. President: I have troubles of my own, and one of them is this: What are we going to do, what steps shall we take in regulating the use of resins by manufacturing confectioners?

President Foust: That is a very important question. I am very glad that Dr. Barnard has really raised it. I am going to ask Commissioner Ladd to answer it. He is not here, but I have just sent for him. There isn't anything in Pennsylvania that is giving us so much trouble now as the very question raised by Dr. Barnard. We have a ruling there prohibiting chocolates and other confectionery being glazed with a resinous glaze. There are some glazes that are not composed of resinous matter, and we say nothing about any glazes except the resinous glazes. Such glazes are prohibited; and we find that there is shipped from New York State into Pennsylvania certain confectionery that contains a resinous glaze, and our manufacturers in Pennsylvania, who do not use resinous glazes, are complaining very much about confectionery being shipped in, principally from New York State and some little from Ohio, containing resinous glazes. I want to ask Dr. Barnard now to state his question again, then I want to ask Dr. Ladd to answer him.

Dr. H. E. Barnard: We are frequently confronted by the proposition of the use of resinous glazes by manufacturers of confectionery. I should like to know what action has been taken, if any, by the other commissioners, and what action Dr. Ladd would think proper under the circumstances.

Dr. E. F. Ladd. Mr. Chairman: So far as that is concerned, we have for the last four or five years declared the use of shellacs, gums, and paraffine in all candies, confections, illegal, and never have had occasion to prosecute for that because they have discontinued the practice. It is very, very rare, only occasionally when some jobber sends in from outside to some local parties, that we have that class of goods in the state. They do not use shellacs, gums, or paraffines in any candies at the present time; and I believe, further than that, that this is a class of products that should be prohibited in confectionery. It is used most largely in those cheap candies eaten chiefly by young children, penny candies and chocolates, and various preparations of that kind; and I cannot feel that the continued use of gums or the putting of paraffine, insoluble matter, indigestible matter, into the stomach is a desirable thing. We have a law that prohibits their use in our state. I think that class of products should be prohibited. They are not normal constituents of candies or confectionery.

President Foust: May I ask that Commissioner Ladd give the commissioners here a brief history of the resinous glaze, the source from which it is derived, its unsanitary history and so on? We had it in one of our courts in the trial of a case.

Dr. E. F. Ladd: I believe you could do that better than I can, Mr. President. I know that some of it is not a very desirable product. Of course, the gums and resins are not purified and, if you examine them microscopically, you will find very often foreign matter

present in them sufficient to condemn them. More than that, there are a number of those resinous products—from what source I do not know—that contain arsenic; so that in every resinous preparation you will find, not in rare instances at all, but in very many instances the presence of arsenic in sufficient quantities to make it undesirable.

A Delegate: Did I understand you to say, Dr. Ladd, it was a ruling or a specific statute?

Dr. E. F. Ladd: We have held that our statute covers this, and I have felt that the other side must have agreed with us because they have not contested any case.

Dr. S. J. Crumbine. Mr. President: It seems to me that this is a question that ought to have very weighty consideration, particularly in those states which, during a certain season of the year, have very high temperatures. There are certain confections that need some, what you might be pleased to call artificial protection, and it occurs to me that there are certain resins or gums upon the market of vegetable origin that are not objectionable, that are not indigestible, that might very properly be used for coating certain grades of chocolate that deteriorate very rapidly in high temperatures. For illustration, last year in Kansas was an exceedingly hot season. The temperature for thirty days were up to one hundred, and many days exceeding one hundred, and the amount of confectionery that was destroyed by excessive temperatures was simply enormous, and it might in many instances have been preserved for food to the consumer, and incidentally have saved a very large expense to the retailers on whose hands it spoiled. Now it seems to me that it is perfectly legitimate matter to use the proper sort of glazes, vegetable glazes, in this respect. That is what occurs to me. I was confronted by that problem. That is one side of the problem which we as commissioners ought to take into consideration, the conservation of food, as well as the protection of the consumer.

The President: Dr. Barnard's question only applied to resinous glazes.

Dr. S. J. Crumbine: I understand that, but it seems to me this is a very appropriate occasion to discuss the other side.

Mr. Geo. L. Flanders: Mr. President: In order that we may understand each other, might I ask Dr. Barnard what he means by resinous substances?

Dr. H. E. Barnard: Substances that have been brought into this country for the purpose of glazing candies, similar to those used in coach varnish and other places where they admirably protect the paint on the carriage.

Mr. Geo. L. Flanders. Mr. President: Now in putting it in that form, I might speak of skim milk as a substance that they make billiard balls out of. What I am interested in is the question of whether the resinous substances are vegetable or mineral. The President has referred to the material coming from New York. It is a matter of interstate commerce, and I may be excused now if I refer to a special statute. Our New York statute says in the case of confectionery: "An article shall be deemed to be adulterated if it contains terar abla, barytes, talc, chrome yellow or other mineral substances or poisonous colors or flavors, or other ingredients deleterious or detrimental to health." And the question arises in my mind, are you laboring under the impression that the resinous substance is a mineral substance. If it is not it is not

covered here. I do not so understand it. I understand it to be vegetable, to a slight extent an animal substance. Now I cannot see that our statute prohibits it at all, unless it is a mineral substance or a substance deleterious or detrimental to health; and the first answer I would make to your question would be: If it is deleterious to health, it is prohibited by our statute, and in order to determine that question I turn to exactly such men as Dr. Ladd and Dr. Barnard, and ask them the question: First, is this deleterious to health? And if you gentlemen cannot answer in the affirmative, we cannot prosecute. You have been asked a question which really should be answered by the physiologists to determine whether the substance itself is harmful, and if it is not harmful, then we certainly should not interfere.

The President: Does it affect the quality, strength or purity?

Mr. Geo. L. Flanders: Quality, strength and purity are not specified by our statute, and I am doubtful if they are by the other statutes, providing it can be shown that it contains nothing harmful. The exceptions all provide for that.

Dr. H. E. Barnard: Does your law allow you to add sawdust to sausages?

Mr. Geo. L. Flanders: Our law does not prohibit it, except you can prove it is harmful or deleterious and neither does yours in my judgment. I have not examined your statute lately; but the general principles enacted are that adulterated products are first prohibited; then they make an exception that they may be sold if they contain nothing harmful providing they are properly labeled. If sawdust is harmful it would be prohibited.

President Foust: May I ask a question, Mr. Flanders?

Mr. Geo. L. Flanders: Yes, sir.

President Foust: Does your law have the provision which most laws have that foods shall not be coated, stained, polished, etc.?

Mr. Geo. L. Flanders: No, our law provides that if it be powdered it shall be deemed misbranded under certain conditions.

President Foust: Just read it, please.

Mr. Geo. L. Flanders: In the case of confectionery we have a separate section as follows: "An article shall be deemed to be adulterated if contains terra alba, barytes, talc, chrome yellow, or other mineral substances or poisonous colors or flavors, or other ingredients deleterious or detrimental to health." It distinguishes between food and candy.

President Foust: Candy is a food.

Mr. Geo. L. Flanders: Food here is defined to be "Confectionery or condiments."

President Foust: What does the color provision say?

Hon. Geo. L. Flanders: It does not prohibit any color except in vinegar, except that the color is detrimental or harmful. But you may state it is artificially colored. Now, the sawdust question, of course, is an extreme question, and I answer the question as any man will answer a question under extreme conditions. But I do think they will have to label the goods as containing sawdust, and, if they do that I do not think they will get any customers.

Dr. Chas. Caspari, Jr. Mr. President: I would like to say just a few words in connection with this subject of resin and paraffine coating for confectionery. I think it is well recognized that the practice of using an article of that kind is not at all a new one, and that

thousands and thousands of people have been eating confectionery that was thus protected against deterioration without any serious results. We all know that the North Carolina prefers pine rosin to tobacco as a chewing vehicle, and we know that rosin, if taken in very large quantities, is going to be hurtful. In small quantities it will pass through the intestines without any solution. The same might apply to paraffine. The amount of resin coating or paraffine on this confectionery is extremely slight, and I doubt whether the child is living that could eat enough to be injured by the quantity of paraffine or resin contained in the coating of that confectionery. It is not given to small infants, it is given to children as a rule who can masticate to some extent, and the amount of paraffine coating is extremely slight and so is the amount of resin coating. As Dr. Crumbine has very properly said, we must take into consideration the preservation of the food, or, rather, the confectionery which must have some protection of that kind; and I think from my own point of view I would be going entirely too far if I were to insist upon the elimination of all protection of that kind of food product that cannot be kept otherwise under certain conditions. The amount of resin coating and paraffine coating is extremely slight. I did at one time ascertain the amount, but I have forgotten just now. It is a very slight percentage, and I have no doubt the same condition exists in other states, and for that reason we do not prohibit in Maryland the use of these protective coatings if they are there in very small quantities, which usually is the case.

Dr. H. E. Barnard. Mr. President: We recently found in a part of Indiana adjacent to Chicago a Greek candy maker using about five per cent paraffin in his caramels. He used it because he said he could make a better article. Under the interpretation of that law as laid down, would we be justified in saying that he could not make a better article by using this paraffin if it is not injurious to health, and probably passes through the system without absorption or digestion.

Dr. Chas. Caspari, Jr.: I think that the coating protection would not amount to one per cent. I should not think he would be allowed to mix it with the mass.

President Foust: I want to ask Dr. Caspari wherein the glaze that is customarily used in confectionery differs from the ordinary varnish that is put on furniture and on the floors, and if it is not substantially the same, and if it is, if it is fit to put into the stomach of our children?

Dr. Chas. Caspari, Jr.: Not a confectioner living would use ordinary varnish to glaze his confectionery with.

President Foust: Wherein does it differ?

Dr. Chas. Caspari: It differs in the first place in the amount of resin in solution. That is the most important part. They naturally use a very small percentage of the solution. They dip the candy in it either by hand or machinery.

President Foust: But the basis is the same.

Dr. Chas. Caspari, Jr.: Not in all cases. In varnishes they use a lower grade of resin. They frequently use methyl or wood alcohol or a mixture of wood alcohol. There is a vast difference between the varnish and the glazing so far as its composition is concerned; but when it comes to paraffine the confection is dipped into the melted paraffine and receives a very slight coating. Dr. Barnard has spoken of five per cent, that course,

be an admixture with the body or mass of confectionery; but to dip that into the melted paraffine which gives a very fine coating would not amount to one per cent of the weight. I would question whether it would be that much. You would have to put a large quantity of chocolate confectionery into your stomach to get sufficient to injure it. It is true that the melting point of paraffine is very much higher than that of the soft paraffine, the soft vaselines as we term them; but we all know the soft vaseline is used internally in enormously large quantities. You could eat a bowl full of it without hurting you. It would simply act as a laxative and carry itself away. It is simply a question of the hydrocarbons being present in the soluble paraffine which is being used as a coating.

Dr. H. E. Barnard. Mr. President: I have one more question, and that is a question of the use of saponin.

Dr. Chas. Caspari, Jr.: In connection with the subject of saponin there are certain saponins which are absolutely harmless. The toxicity of saponin varies materially. My answer to Dr. Barnard is that all toxic saponins should be prohibited under the general law.

Dr. H. E. Barnard: There are non-toxic saponins.

Dr. Chas. Caspari, Jr.: In Germany they allow non-toxic saponin to be used for adding body to the froth of carbonated drinks. The matter of saponins has been very carefully studied during the last four or five years, and more is known about them. We must not confine ourselves simply to soap bark saponin.

Dr. S. J. Crumbine: I would like to ask how the Doctor would differentiate the different saponins?

Hon. Geo. L. Flanders: Before he answers that will he, for the benefit of the laymen, not the men who are posted, just tell us what saponin is?

Dr. Chas. Caspari, Jr. Mr. President: That would be a difficult proposition for this reason, that with all due respect to the gentlemen present, I am afraid that the large majority of them would not grasp the subject if I were to explain it—due to a want of preliminary training along that line. It is a question of organic chemistry entirely.

Hon. Geo. L. Flanders: I assume that it is a vegetable product.

Dr. Chas. Caspari, Jr.: Entirely vegetable in its character.

Hon. Geo. L. Flanders: And liquid?

Dr. Caspari, Jr.: No, solid. They can be differentiated sharply between the toxic and the non-toxic. This can be done. As I said a moment ago, it would necessitate two or three special lectures on chemistry in order to clear up the atmosphere; but it is possible to differentiate between them.

Commissioner W. B. Barney: I want to ask what he thinks of ether in compound with soft drinks?

Dr. Chas. Caspari, Jr.: I am afraid, gentlemen, you have lighted upon me as the goat.

Hon. Geo. L. Flanders: May I put one more question in with this?

President Foust: Yes.

Hon. Geo. L. Flanders: And in answering that will you kindly give us your opinion whether it is possible to label such a product so as to give the constituents?

Dr. Chas. Caspari, Jr.: I will try to answer it. If I fail, of course, it is not my fault.

Hon. Geo. L. Flanders: I will withdraw the word possible and say practical.

Dr. Chas. Caspari, Jr.: I will say this, that the rule ought to be and should be observed in all states that

where artificial ethers are used as flavoring the preparation should be labeled—"Artificially Flavored." These ethers are frequently toxic if taken in quantity; but no manufacturer would ever introduce such quantities into the ethers or extracts as to render them toxic. The amount used is very small. We permit them in Maryland provided the preparation is labeled "Imitation Strawberry Extract," "Imitation Pineapple," or something of that kind.

President Foust: Should the word "Strawberry" be used when there is no strawberry in the product?

Dr. Chas. Caspari, Jr.: Yes, there is an artificial extract of strawberry on the market as well as strawberry extract made directly from the fruit.

During the last few years German chemists have put on the market extracts made directly from raspberry, peach, pineapple, and strawberry, and the artificial resembles these largely in flavor. I think anyone familiar with it can recognize the difference, but they are not harmful in the small quantities. A teaspoon containing five or ten per cent of the ether added to a quart of cream could do no harm at all, but I would not want to swallow a teaspoonful of the ether myself. It is not going to injure anybody or kill anybody provided it is properly labeled.

Hon. Geo. L. Flanders: One more question on this point. If our laws were amended so as to prohibit putting into a food product anything that might of itself be harmful, would it of itself prohibit some of those ethers? I do not mean result in making the finished product harmful, but the substance itself being harmful if taken alone.

Dr. Chas. Caspari, Jr.: I think that is a very difficult question to answer, President Foust, because if you take vinegar as used in making pickles and a person should drink the vinegar, per se, it is only a question of the quantity that he drank. He would probably die as a result of taking pure vinegar. Yet we all eat pickles, and some of us like small quantities of vinegar and some large quantities in our salad. It is a difficult question to answer.

President Foust: Com. Barney has a question he wants to ask.

Com. F. H. Stadtmueller: How about wild cherry flavor?

Dr. Chas. Caspari, Jr.: Wild cherry itself has no specific flavor, except as an ordinary cherry flavor, and the flavor that is often assigned to wild cherry is that due to a formation of a product like the hydrocyanic acid of bitter almond and peach leaves. If we take the ordinary cherry seeds and mix them with the bark we develop hydrocyanic along with the benzoic.

Com. J. W. Helme: How is tame cherry flavor made up?

Dr. Chas. Caspari, Jr.: I never have eaten any tame cherries, I don't know what they taste like.

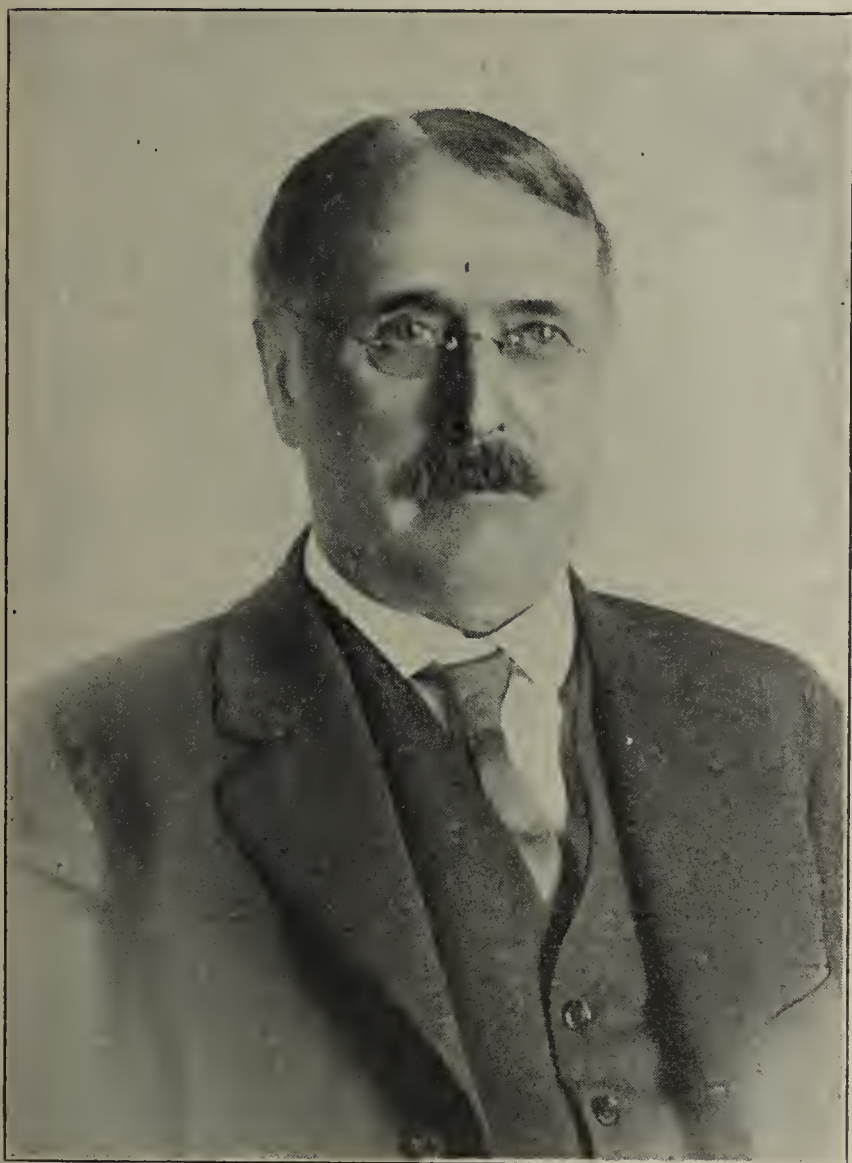
Com. W. B. Barney: I want to say that we have a great deal of trouble in Iowa with the shipment of linseed oil from Nebraska and Minnesota and outside of the state—an interstate proposition; and we have had so much trouble with it that we drew a bill which is almost a facsimile of the Iowa linseed oil law, asking Congress to make it a Federal law. I don't know whether it has got out of committee yet or not, but we are still having the trouble and it is this: That they take a product, about 40 per cent of linseed oil, and mix it with about 60 per cent mineral oil, or possibly just the reverse of that, and ship it into our state, and our only recourse is to prosecute the retailer. Now we

are getting just a little tired of that, and I would like to know how the commissioners handle a proposition of that kind, if there are any here that are having that trouble.

Hon. Geo. L. Flanders: We are also having that trouble in New York, and we would like to have Congress step in and enact a law regulating the matter. We do not like to go for the retailer who bought it for pure linseed oil and offers it as such.

Com. W. B. Barney: I want to say that there is a bill before Congress at this time. I sent a deputy commissioner to Washington and he spent about ten days there, and I know many commissioners here did what they could to further the matter, and I want to assure you that we appreciate whatever you did do, and we are going to ask you to do all you can to enact it into a Federal law.

Com. G. G. Frary: We had some difficulty with oil



MR. JOHN McCABE, Assistant Dairy and Food Commissioner, Minnesota.

that came from Nebraska, I think, and I think our former commissioner made a few prosecutions. But we have been able the past year to pick up but one sample of linseed oil containing mineral oil, and we prosecuted the agent, he happened to be the agent of a Nebraska concern.

Dr. H. E. Barnard: Is not the fact that there has been a drop in price of linseed oil in the past year a very important factor?

Com. G. G. Frary: Of course, that has helped.

Asst. Com. Mr. John McCabe, of Minnesota. Mr. Chairman: I would like to say that in Minnesota, in handling adulterated linseed oil we have a specific law defining pure linseed oil, whether raw or boiled. Some years ago, about four years ago, we prosecuted several

retailers. The commissioners, as Com. Barney says, got tired of that. It did not accomplish much in cleaning the situation up. We then took the matter up of confiscating this oil wherever found, and securing an order of court for its final disposition, with the result that we confiscated probably seven or eight hundred barrels of oil. We had a method of tracing this oil from its source of shipment and its arrival. We could not touch it until it lost its interstate commerce character. We then seized it and without asking a finding against the retailer we succeeded in driving that product from the state. Before that, however, we had an injunction served upon us by the manufacturers of the oil prohibiting us from interfering in any manner with the shipment. That was in the United States Court, and there were ten allegations. The United States Court, in rendering its decision, said that out of ten allegations set out in the complaint not one of them was true. In every instance where the oil was confiscated the State Commissioner was backed up by an order of the court. We sold that oil to foundries and to soap factories with the requirement that it would not be disposed of in any other way. Since that time, that is some three years ago I think, or four, we have found but one case of adulterated oil in Minnesota.

Hon. Geo. L. Flanders. Mr. President: I would like to ask the gentlemen who lost the oil?

Asst. Com. Mr. John McCabe: The manufacturer, or if the retailer paid for it he lost it.

Dr. S. J. Crumbine. Mr. President: I would like to ask a question for discussion. What has been the experience of the commissioners in the matter of the use of the ordinary paraffine oyster container used by the retailer dealer in the sale of oysters? I am asking that question by reason of the fact that in our state this past year we have had a very great deal of complaint of the oysters tasting of kerosene oil, and for a long time it was thought it was carelessness in handling by dealers selling kerosene oil and contaminating the oysters; but it was later developed that a cheap grade of oyster containers was the source of the contamination. I am wondering if this is a widespread complaint, and if so, what action we should take in recommendations, etc.

Dr. Chas. Caspari, Jr. Mr. President: These paraffined oyster containers are used quite largely with us in Baltimore. As you all know Baltimore enjoys quite a large oyster industry, and the retailers and larger dealers employ these paraffined containers, usually made of wood pulp, sometimes paper, with paraffine inside. I think the difficulty which Dr. S. J. Crumbine has complained of must have been due to an inferior grade of paraffine in coating these vessels. We have had no complaint of that kind; they use them even for lard and butter containers.

Asst. Com. Mr. John Newman of Illinois. Mr. President: Our firm was the first in the country to manufacture a butter carton. In the manufacture of these cartons we had great difficulty at first in securing a paraffin that would coat the paper and yet not give off a taint to the butter. We experimented with the different kinds of paraffin and finally by the co-operation of the Standard Oil Company, they made us a special run, a wax that was specially treated and at a melting point of 136° Fahrenheit. It was necessary to get wax of this high melting point before we found one that would be free from odor and that would not taint the butter. This paraffin has since become known as a high grade dairy wax, from the fact that it was clean

and free from odor and could be used on packages to be filled with butter.

Com. F. H. Fricke, of Missouri. Mr. President: I would like to ask a question. I want to know if there is a commissioner here who can explain to me what he can do in a case of this kind: In Missouri our markets are exposing to the public tubs of oleomargarine. Back of the tub they will hang a sign with wording to this effect: "Fresh Elgin Creamery," or they may have on there: "Fresh Wisconsin Creamery." Now that is all it is labeled. What would you do in that case?

President Foust: I would suggest that you enact the Pennsylvania oleomargarine law, get your courts right, and then enforce it. I am going to ask Dr. Barnard to answer the question.

Dr. H. E. Barnard: We have had a number of similar cases in our state and have had no difficulty in securing a conviction under the regular pure food law, alleging misbranding.

Com. Jas. W. Helme. Mr. Chairman: I have had quite a lot of experience with that. We had an advertiser in Detroit doing the same thing, he advertised "Visit Our Butter Department. Don't Pay 40 Cents a Pound for Butter. Buy Our Fresh Churned at 25 Cents." Of course, that was oleo. We had law against deceptive advertising, but the Supreme Court knocked us out on it. That left me without anything to stand on, but I went into the Detroit papers and spent five hundred dollars advertising him, just one display advertisement, telling the people what he advertised about "Fresh Churned," and that it was "nothing but Oleo," and not to be fooled by him. Now we have got a law covering it.

Dr. H. E. Barnard: I want to ask Com. Helme under what appropriation he gets that money?

Com. Jas. W. Helme: I get that out of my appropriation. I have an appropriation that I can spend the way I want to, and in a way that I think will be most effective.

President Foust: It is now ten minutes of five. We must be up at the hotel at 5:30. If there is any further business we will take it up; if not we will adjourn. We might go into the election of officers, if it is the wish of the section. What is your pleasure?

Mr. R. M. Allen, of Kentucky. Mr. President: I would like the unanimous consent of the convention to offer the following officers:

For President, Com. James Foust of Pennsylvania.

For Vice President, Mr. A. M. G. Soule of Maine.

For Secretary, Com. W. A. Barney of Iowa.

For Treasurer, Com. Frank A. Jackson of Rhode Island.

For the Executive Committee, Com. James W. Helme of Michigan, Com. E. F. Ladd of North Dakota, Com. Guy G. Frary of South Dakota; and I move that these officers be elected unanimously without contest.

Com. W. B. Barney: I would like to amend that motion, and place Com. Newman in my stead, as Secretary.

Asst. Com. Mr. John Newman: That motion cannot be amended.

President Foust: It is so ordered. If there is nothing further we will stand adjourned until two o'clock tomorrow afternoon.

(Adjourned.)

Section A—Association of State Food and Dairy Executives.

AFTERNOON SESSION—WEDNESDAY, JULY 15, 1914.

President Foust: Section A will now come to order. The first order of business will be a paper by Com. James H. Wallis, of Idaho, subject: "What is Done With the Cases Declared Illegal or Not Passed? Why Should the Annual Reports Not State the Facts?"

WHAT IS DONE WITH CASES DECLARED ILLEGAL OR NOT PASSED? WHY SHOULD NOT THE ANNUAL REPORTS STATE THE FACTS?

MR. JAMES H. WALLIS.

It has always been a question with me, in looking over the official reports and bulletins of some of the food officials as to what action they take or what methods they adopt in making final disposition of cases where they declare them to be illegal, but which are not prosecuted. I make the statement "not prosecuted," because that is the only conclusion one can reach in reading the report. If they were disposed of in the courts, it is fair to presume that such a disposition would be shown, with the action taken, either by fine or imprisonment, or both, or by verdict of not guilty or case dismissed.

When a food or drug product has been analyzed and found to be in violation of law, or the wrong or insufficient labeling, shows it to be misbranded, then the natural inference is that the case should be prosecuted. If such action is not taken, ought not some explanation be made in the official report as a reason why the Commission makes an exception in these cases? A manufacturer or dealer, who has been punished, in reading such a report is led to wonder why he was prosecuted and these other people escaped the vengeance of the law. Is he not justified, in the absence of any explanation, to come to the conclusion that the commissioner was making unwarranted exceptions?

I can well understand why some cases of unintentional misbranding are not prosecuted. I can well understand why even some cases of adulteration are not taken into court. But the fellow who has been pinched doesn't understand it. All he can see is the fact that he has been hauled into court and pronounced guilty of a criminal act, and paid the penalty pronounced, in addition to which the press has proclaimed to the world that he is a lawbreaker. It seems to me that a commissioner is placing himself in a false light by not making some explanation of these cases, and possibly doing himself an irreparable injury in some instances.

In some states these publications are only made biennially. Then in such cases where a product is "not passed," the public have no opportunity of knowing the fact until such a report reaches them, while the dealers may have the same goods on their shelves, and not be aware of the fact that they are under the ban of the law, because no official notice has been given, or served on them. And when the public and dealers do finally receive word through the official report, even then no information is given them as to why the article is "not passed" or has been declared "illegal."

To effectually accomplish the object of such publication, a monthly bulletin should be issued, giving a statement of each case, and if not prosecuted, the reasons why. Then if some such scheme for further publicity could be secured, such as the official newspaper publications provided for in North Dakota, then the trade would have no excuse for having in their possession for sale those goods which have been declared "illegal," but which for some good and sufficient reason the commissioner has not prosecuted.

President Foust: I trust that we shall now have a full discussion of this paper. I want to endorse just what Com. Wallis has said. We report each month the final disposition of all cases, and then we print the character of all cases terminated in the Annual Report at the end of the year; and I have gone over many of the reports, more especially from the middle West, and I run against the same trouble that Com. Wallis has mentioned in his paper. Some reports say "Legal" — "Illegal"; some say "Passed" — "Not

Passed"; but we never find out what was done with those cases. Now let us hear from the different states briefly what you do and why your annual reports do not give the facts. Who will be the first?

Dr. Chas. Caspari, Jr. Mr. President: I do not hesitate at all to say what we do in Maryland. Our board has followed a policy for the past four years which seems to be productive of some good. When the case reaches my hands, either from the laboratory or direct, I pass upon one question only—as to whether it is in conformity with the law, or whether there is an alleged violation of the law. Every case of an alleged violation of the law is subject to a hearing. I believe I stated yesterday that in our board, we have three members, and every alleged violator is summoned before that board. He is given an opportunity to explain the conditions and the hearing board then makes its report to the State Board of Health at its monthly meeting. Of course, the board has superior powers to set our recommendations aside. If it is a first offense case, no further action is taken at all, although the man at the hearing has received a reprimand and proper warning as to the consequences of future violations. Besides the first offense cases there are often trivial violations which a reprimand or warning will cure, and prosecution is only taken in those cases which are either second or third offenses by the same party, or where the violation is so aggravated that there is no room for doubt as to some decided fault on the part of the violator.

President Foust: About how many cases do you prosecute in a year?

Dr. Chas. Caspari, Jr.: Well, I presume that the average for the four years probably has been twenty-five cases a year, and we have not lost a single case. We never go into court unless we are sure of our case. If there is any doubt from a legal standpoint we are advised by our council as to the condition of the case. We do not prosecute, but we give the man clearly to understand—sort of a Scotch verdict—that he must not do it again; so that during my experience that plan has worked very well, and I am glad to say that the number of cases of alleged violations has decreased very materially. Now we do not publish the names of any one in our annual report except of those who have been prosecuted. We state the number of cases, the items purchased, and the reason for declaring it illegal or not passed. We give that information but we mention no names whatever, and this has been highly appreciated I believe, by the food trade as well as by the drug trade.

President Foust: How does the public of your state approve of that?

Dr. Chas. Caspari, Jr.: They seem quite in sympathy with us on that point. The matter was discussed at some length as to whether it would be desirable to change the policy and publish the names of all, good and bad, and it was thought wise to continue our present policy, or rather the policy that we have had for the past four years. We have had no cause for changing at present. It is true, of course, that some of those who are always found good would like to see their names in print, and would like to see the names of those who are occasionally hauled up for alleged violations. We always say "alleged violation," we do not use the term "You have violated the law." We say "it is alleged" you have. Sometimes a hearing lasts two hours in one case, and again we get through

with it in twenty minutes. We have found that very successful.

Com. W. B. Barney: Mr. President, I want to say that in Iowa we only publish the names of the parties on whom we succeed in making successful prosecutions. Now I think our last bulletin showed that we have had about three hundred or three hundred and fifty successful prosecutions within six months. Now in handling the cases that come to me—for example, we will say it is a milk case—it comes to me on a card and the analysis shows that that milk has a butter fat content of 3.90; our standard is three per cent. I never make a case where it is as close to the standard as that, and I want to say that the reason I do not make a case is because we do not feel generally that we can go into court and be successful with that kind of a case; and in handling matters in that way we very seldom are ousted when we get into court. We make successful prosecutions. Now that is true as to ice cream. If it is right up close to standard, I do not prosecute the case, because the court is apt to say that "that is a technical violation, couldn't that have been some fault of the man who made the analysis?" and we overlook it. Now I write that man a letter and say to him—I don't tell him that he is below the standard, but I do say to him that he is so dangerously near the standard that he is apt to get into trouble unless he mends his ways, and I have found that it works out admirably. Now if I were to say to him that he was below the standard, and the next time he was just a little bit lower than that, he would say, "I was below before, but you didn't make a case; I am only just a little lower this time, why are you getting after me now?" So I never say, "You are below the standard," but "you are dangerously near, and the thing for you to do is to get your product up a little." I have found that that works out to good advantage, and I think that the less cases the commissioners make and are defeated in, the better we are off and the more confidence the public and the people will have in our work.

Com. Jas. H. Wallis: That is as far as milk is concerned. Supposing you take samples of extracts, and you find a lemon extract deficient in the standard for lemon oil, and it is some time before you make your analysis, and you possibly conclude that you will not prosecute. It is an illegal product but you do not prosecute. Now would you publish a case like that in your bulletin or your report?

Com. W. B. Barney: I would publish every successful prosecution in my report.

Com. Jas. H. Wallis: You do not publish a complete list of your analyses at all?

Com. W. B. Barney: No, sir.

Com. Jas. H. Wallis: If you find it deficient under the standard?

Com. W. B. Barney: Yes, sir.

Com. Jas. H. Wallis: You don't prosecute and make no mention of it at all?

Com. W. B. Barney: Make no mention at all.

Com. Jas. H. Wallis: What do you do with the product; what do you do with the goods?

Com. W. B. Barney: If we find them wrong?

Com. Jas. H. Wallis: Yes.

Com. W. B. Barney: If it is anything where there is just a slight variation, as I spoke of in the milk or ice cream?

Com. Jas. H. Wallis: No. I was speaking in regard to lemon extract, or any kind of extract.

Com. W. B. Barney: I think that would put a dif-

ferent phase on the matter, and I would probably make a prosecution under that; but if I did not make a prosecution I would not mention it.

Com. Jas. H. Wallis: Would you write the manufacturer and tell him what you had found?

Com. W. B. Barney: I think I would.

Com. Jas. H. Wallis: Then you give a notice to the manufacturer what you have found?

Com. W. B. Barney: Yes, sir, always.

Com. J. G. Winkjer: Com. Barney mentioned that if it was just a trifle below, the case was not brought. I think it could be extended a little bit more in the line that he is talking about. It is our practice in Minnesota to keep a very close watch of some of the manufacturers, where they keep just a little below and stay there. We keep on taking samples on them and if we notice that they make a practice of keeping right down below the notch we keep at them, even if it is a very small percentage below, so as to hold them up a little over the standard.

Com. W. B. Barney: I might answer that by saying that if I find a man's milk is 2.90 and the next time it is 2.90, I do make a prosecution; but I write him a letter the first time.

Com. G. G. Frary: Mr. Chairman, in reference to publication of bulletins I might suggest that if we all had the privilege of using the second-class mail we could do that to advantage. We don't have that privilege; it costs us a good deal of money in addition to some trouble. We have the same law in our state as in North Dakota regarding publication in official county papers of lists of adulterated and misbranded products, and we find it a great help. Since I have been commissioner I have been publishing a bulletin every two months—not every month, but every two months—and in that I aim to publish a list of all the analyses we make. We have had two classes of samples taken, especially from the druggists, for the purpose of educating the druggists and getting them into line and showing them how it should be done. I think if we publish the results of the analyses all the druggists of the state see just how the other druggists are running, and, of course, they like to have the goods show up well even though they are submitted samples. We have a regular form which we send out for that purpose.

Com. F. H. Fricke: Mr. Chairman: Referring to the question which Com. Wallis raised in reference to extracts, I would like to explain what we do in Missouri. Now, I have in my report quite a number of extracts which show that they have not been passed. I did not think of bringing these cases for the simple reason that I find that the manufacturers of these extracts have an extract of lemon, and they label it "Double Strength Extract of Lemon," for instance, and we find they do not bring it up to the standard. In cases of that kind I notify the retailer that the lemon extract which he is offering for sale is below the standard, and is misbranded. The claim, of course, is that it is double strength extract of lemon. We condemn these goods, and, with the consent of the owner, we destroy them. In that way we get rid of them so that the public cannot purchase them.

President Foust: Has anyone anything further to say?

Hon. Geo. L. Flanders: Mr. President: I want to put a question, and I have been wondering just where to put it. I have got a couple of them. The first one is on the question of the advertising or publication. We

have heard a good deal since we have been here about publishing facts that you find. By so doing you have a means of spurring somebody up to do differently than he otherwise would do. The first question that comes into my mind is: Are you people who are doing that authorized to do it by statute, or do you take the responsibility of it yourselves; and in doing it, whether authorized or not, are you not making your publication a means of advertising a man's business either for good or bad? Is that the object of the pure food law? Then, again, if you are not authorized, and you make a mistake, don't you become personally liable in damages to the man whom you have injured by publishing something against him? For instance, I will give you a case that I know of. All these questions come into this question of publication which I have been thinking of since I sat here. I won't say what state, or who the man is, except to say that it was in an experiment station that I know about that was publishing a bulletin relative to fertilizers and had no authority by the statute to publish it. There was nothing in the statute authorizing him to issue the bulletin. He finally analyzed a sample of goods manufactured by a certain person, and was about to issue a bulletin. A man who had been Attorney General of the state, as an attorney wrote him to this effect: "If you publish that bulletin, you have no authority under the statute, and I shall proceed against you for damages, and shall ask the Supreme Court to issue an injunction to stop you from publishing it until the result of the trial is known. He then went to the Attorney General of the state in which he lived and inquired what his responsibilities were. The Attorney General simply said to him: "If you publish any facts, even if true, that you are not authorized to publish, and damage that man's business, he will undoubtedly get a judgment against you for the full measure of damages if he can prove it." Now the point I raise in this question here is whether an executive officer in taking the liberty to publish material which may damage a business is not laying himself personally liable, and, if he is, whether he had not better have in his statute, the power to do that before he proceeds. It has been asked if that would apply to reports to legislatures. No, the legislature creates the department, gives it power to do certain work and requires that department to report its proceedings. That report, in a sense, is a confidential report, and you are not responsible for that because the publication of it either follows or not as the legislature itself wills. The legislature passes a resolution for printing and publishing. You simply forward to your master a report of what you have done.

Asst. Com. John McCabe: I would like to ask, in a case where the following language occurred, defining the duties of the food commissioner: "He shall report on or before the fifteenth day of the next session of the legislature concerning his official acts, showing the receipts and disbursements of his office, and may issue bulletins of information from time to time." Now if he does issue those bulletins, and gives the exact information and the evidence in the case, is he then liable to an action?

Hon. Geo. L. Flanders: The gentleman asks me to interpret his statute probably. My answer would be that it would be my opinion that you are authorized to issue a bulletin, but that would carry with it the implication that what you do publish are facts reasonably ascertained in enforcing the law.

Com. G. G. Frary: I would like to ask Mr. Flanders when he considers such publication justifiable?

Hon. Geo. L. Flanders: I thought I answered that, but I will try it again. When your legislature gives you authority and power to do certain things, and then says to you, "You shall report," no matter when, "the things that you do," then you do report the things you do to that body. That is not publishing them. You have simply, like writing a letter to an individual, sent to that body a report of what you have done. If it is published, it is published by authority of the legislature, as I understand it. The publication is justifiable when and as the legislature authorizes.

Com. F. H. Fricke: We have in Missouri the following: The Commissioner shall make an annual report to the Governor, on or before the first day of January of each year, which report shall be printed and published. Such report shall cover the work of his office for the preceding year, which report shall be printed and published. Such report shall cover the work of his office for the preceding year and shall show, among other things, the number of specimens of food products analyzed, and the report of the analysis upon each one when the analysis indicates the same to be contrary to law; the number of complaints entered against persons for violations of law relative to adulteration and misbranding of food and drugs; the number of convictions had and the amount of fines imposed therefor; an account of the money received and expended by him and his assistants, together with such recommendations relative to the statutes in force as his experience may justify. The Commissioner may also prepare, print and distribute a monthly bulletin containing the results of inspections, the results of analyses made, or caused to be made, with explanations of the same, and such other information as may come to him in his official capacity relating to the adulteration and misbranding of foods and drugs so far as he may deem of benefit and advantage to the public; also a brief summary of the work done during the month by the Commissioner and his assistants in the enforcement of the laws of the state; but not more than ten thousand copies of each of the monthly bulletins shall be printed, which printing shall be done by the state printer and shall be paid for in the same manner as other state printing."

Hon. Geo. L. Flanders: Mr. President: In my judgment, if you make the report that the legislature authorizes you to make, the responsibility is not yours, and they cannot hold you for damages. It is their responsibility; but when you step outside of the given authority, you take the responsibility.

Com. Jas. H. Wallis: Mr. Chairman: I am very glad to hear that explanation from Mr. Flanders, because it is a position I have taken with our Commission. We have nothing in our laws specific about publishing bulletins, but it says that we must make a report to the Governor, and all those reports are usually ordered printed when the report is presented to the senate; so it relieves our commission of responsibility, as I have always contended with our commission, and puts it upon the senate or the legislature.

Com. Jas. W. Helme: I think at Mobile Mr. Flanders was somewhat tender-footed in this matter; but I want to say to you that my exposition of the law at that time—I consulted with certain lawyers afterwards, although I am a lawyer myself, and I am satisfied that the position was correct. In the early his-

tory of my life I was a lawyer, and defended a public official for performing a duty, and at that time I had occasion to look up very thoroughly the law of public officials, and I do not think there is any question but what any public officer who performs what he believes to be his duty, which is within the scope of his office, is clearly protected from any mistake he may make. Just think of it for a minute! Suppose every public officer in this country was liable for a mistake he made, what would be the result? Why public officials would do nothing. Any public officer who performs his duty within the scope of his employment, even though he makes a mistake, unless it can be shown that that mistake has been made by him either corruptly for money or maliciously for spite, is protected by his office. Now in Michigan we had a recent decision along that line in a case where the Speaker of the House of representatives, a member of the Board of Supervisors in one of our counties, in accordance with law made a report that the County Treasurer was corrupt, and had been stealing from the county. Now he had been ordered by the Board of Supervisors to investigate the situation in the county treasury and make a report. It was within their power to do that. He made that report. He was mistaken in his analysis of the situation, but it was admitted that he did it in good faith. The Supreme Court said, when they sued him for libel, that there was nothing doing, that he acted as a public officer within the scope of his employment and without any corrupt or sinister motive. Consequently, he was not liable. Now I think that is your situation. I have issued a good many bulletins that have been libelous, so to speak. I have been threatened with two or three suits. One paper that published one of my reports got a libel suit on their hands, but they came out of it all right on that proposition. I don't think we should be afraid to do our duty. Now I can issue a bulletin on foods or on drugs, or anything within the scope of my employment, but if I take up fertilizers, which is in another department, I would be then stepping outside of my office and would be responsible as a private citizen for any mistake that I made. Whatever I make in good faith, within the scope of my office, I am not responsible for.

President Foust: I desire to say that I was Chief of Police in our city for several years and learned my lessons there. I have to agree with Mr. Flanders that if I as commissioner print in any publication without authority of law the condition of a product, no proceedings having been instituted, the dealer affected could not proceed against the state for damages, but they could proceed against me individually; so I do not think we ought to print anything mentioning any brand or any manufacturer's name until the case has taken its regular course through the courts and been properly terminated. After a case has become a matter of public record, and been disposed of by the court having jurisdiction, then we run no risk if we print the final disposition of the case in that court.

Hon. Geo. L. Flanders: Mr. President: May I say just a word, taking the cue given me by my friend from Michigan? I will ask from the standpoint of policy, if it would be good policy for us as commissioners, working to defend the public on the one side, to indulge in a policy that might wrong other people; in other words, should we not do all the good we can and as little harm? That is the first proposition and the fundamental one. I will say so far as the liability is concerned, it may be a question that is different in

different states. I assume that it is possibly the same in other states to some extent as it is in New York. For instance, the people elect an Attorney General. He is the state's law officer. If an executive officer has doubt as to what the law is, he should submit the question to the law officer of the state and, if that officer apprises him that he cannot do a certain thing, and then he does it, and he is sued for damages and they find that he did wrong, the chances are that they will recover damages against him. Should that officer advise him that he could do such a thing, and then the court held that the Attorney General was wrong, they would hold that the executive officer was wrong under extenuating circumstances. That is the situation in our state, and I think possibly it would be in other states. At all events it seems to me that an executive officer should arm himself pretty well before invading the rights of private property or the private rights.

Com. Jas. W. Helme: Mr. Chairman: To carry out this thing a little further, our brother, the Chairman here, thinks that before publishing anything on anybody that I ought to wait for a prosecution. The gentleman from New York thinks I may be invading somebody's rights. Now let us take the case of where a man got sued for twenty thousand dollars for publishing my bulletin. Here was a concern in Chicago, or Columbus, Ohio, advertising a consumption cure composed principally of iodide of potash. Everybody knows that there is no such thing as a cure for consumption, especially iodide of potash. An advertisement is placed from outside of the state in the papers. The article is not placed on sale in drug stores, but an agency is established. People go up there and they are there told what a wonderful remedy it is, and they are seduced into getting it. Hundreds of poor fellows spend their money on that remedy. Now, what is my duty? Am I going to stand here and because I can't prosecute anybody, allow the people of Michigan to be swindled? Not much. I do not believe that is my duty. My duty is to publish a bulletin and expose that thing, and I did, and it was within the scope of my employment and I am not responsible; and I can go one step farther and say that any paper that publishes my bulletin is not responsible either, because they are publishing an official document. No newspaper can be responsible for a libel for publishing an official document. We once had a Governor of Michigan, who said that one of the members of the Supreme Court was a liar and thief, and he could prove it, and he said it in his message. Now the message of a Governor is a public document, and is privileged, and every paper in the state could publish that message without being responsible for libel whether that was so or not. So a great many of these cases come up where you cannot get at them for prosecution. What are you going to do? Are you going to let them come in and swindle the people? I don't believe it. I shall expose them so long as they come within my jurisdiction. I don't believe there is any chance of any financial responsibility.

Hon. Geo. L. Flanders: We have been discussing, of course, the publication when we did not have authority. Now, question. If you have authority under your statute to do this thing, there is no question to be discussed here. We admit that you are authorized.

Com. Jas. W. Helme: I have authority under my statute to do that; but I think independently of that when I am appointed Dairy and Food Commissioner.

What is the office for? It is to protect the public of the state from being defrauded, and I think I have a general authority outside of any special authority to conduct that office in the spirit in which it was created.

Hon. Geo. L. Flanders: Mr. President: On that point, before the gentleman leaves the floor, I would like to raise a question. If that spirit is to prevail of enforcing the law, would it not largely depend upon the way you interpret the statute how broad your scope would be? The title of the bill might lead you to think that you had a right to regulate all seed questions of experiment stations. To my mind that doctrine is very, very dangerous.

Mr. R. M. Allen of Kentucky: Mr. President: Suppose, disregarding the question of statutory authority, you were correct as to facts. Can a man stand on the facts that make a publication? To illustrate, you have no law in the state of New York which applies to misbranded liniments. You want to bring that to the attention of the legislature in order to secure the necessary legislation. You say, we have these misbranded liniments in the state of New York; they say where. You give the legislative committee, if necessary, a circular stating that this liniment and that liniment I have analyzed and it is misbranded for this reason and that reason. At least, it has this misleading statement. Don't you think you would be solid if your facts are all right?

Hon. Geo. L. Flanders: The gentleman's question involves two cases, one where he acts as an individual without official authority, and the other case is where it is an official act. Now in order to answer that question, first let me draw your attention to the fact that the publication which is official, signed by an official, carries more weight to the public than the opinion of an individual. Now if you publish as an official, sign it in an official way something that was not true and damage a man, you have damaged him more than you would if you took the ground as an individual, and would be held personally liable. Now if you do not do it as an official, but as an individual, then you are on that individual's ground, and if what you say is true and published for a good purpose, I do not think you could be held responsible. It lacks the force in the community that an official publication would have had, and he could not proceed against you officially; he could individually. He might win and he might not, that depends on circumstances. Right there is involved another question of law. The truth, you know, is not always a good defense. It depends entirely on the spirit in which it is published. For instance, supposing I have committed a crime twenty-five or thirty years ago—a bad one. I live it down; I raise a family of children; I have lived a respectable life for twenty-five years; you discover the error of my ways in early life, and you go out and publish it, not for the purpose of doing any public good but for the purpose of injuring me and my family. Then you come into court and defend on the ground that it is true, and I show that the motive is to ruin my family and standing. I do not think that the truth is any defense there. I think that is good law.

Mr. R. M. Allen: Whether you have statutory authority or not, be sure that your facts are right and that your methods of publicity are fair. Is not that the basis?

Hon. Geo. L. Flanders: Mr. President: If I was going to publish anything concerning anybody's busi-

ness, the first proposition I would try to be sound on would be my facts. As a matter of fact, if I was going to publish anything I would be sure first it was correct, then I would want to go a step farther and ascertain whether I was wise and within my rights in doing so.

President Foust: The time allotted to this paper has expired. While this discussion is very interesting, we must pass on, because we must close this program this afternoon. The next paper will be read by Mr. R. M. Allen, of Kentucky, a paper prepared by Dr. R. V. Fitz-Randolph, and the subject is: "Need for a National Cold Storage Act."

Mr. R. M. Allen: I will ask that Asst. Com. Newman, of Illinois, read it.

NEED FOR A NATIONAL COLD STORAGE ACT.

BY R. B. FITZ-RANDOLPH, CHIEF OF THE BUREAU OF FOODS,
DRUGS, WATER AND SEWERAGE OF THE NEW JERSEY
STATE BOARD OF HEALTH, AND DIRECTOR OF
THE STATE LABORATORY OF HYGIENE.

DR. R. V. FITZ RANDOLPH.

The cold storage industry as applied to food products, while of comparatively recent origin, has already become a necessity. We cannot do without it. It is hardly pertinent at this time to discuss the reasons for its phenomenally rapid growth. They are sufficiently well known to all of you. It is an industry which has by no means reached its maximum, but is destined to show a much greater increase in the future. It is an industry which has greatly benefited the consuming public, both by conserving very large quantities of perishable foods which would go to waste if storage facilities were not available, and by lengthening the season of such foods, thus providing for a more varied diet at all times than could otherwise be obtained.

A very large proportion of the foods held in cold storage get into interstate commerce at one time or another, and therefore properly come within the jurisdiction of the Federal government. Therefore, if any laws regulating cold storage are needed, a federal law should be enacted. There are cold storage laws now in force in a number of states, and it is quite likely that there will be more in the future. Some of these laws are excellent; others contain provisions a legitimate industry without corresponding benefit to the consumer. All cold storage legislation is of very recent origin; the law in New Jersey, which was one of the first, having been passed in 1911.

The greatest objection which can be made to the cold storage laws of the different states is their lack of uniformity, and the promotion of uniformity in state laws will be one of the most beneficial results of a federal law when enacted. The varying time limits of storage in different states are at present the cause of considerable confusion. In New Jersey eggs may be kept in storage for ten months, but when removed at the end of that time they may not legally be sold in Pennsylvania, where the time limit is only nine months; but these eggs may safely be sent to North Dakota, where the time limit is twelve months. Beef, which may be stored in New Jersey for ten months, cannot be taken to Pennsylvania after it has been kept in storage four months, because the Pennsylvania limit for beef intended for sale in that state is four months; but the Pennsylvania dealers may ship into New Jersey and sell beef which they have kept in storage in their own state for ten months. Many more examples of these inconsistencies could be cited, but these are sufficient. There is no good reason for them. If beef which has been stored in New Jersey for ten months is good food in New Jersey, there is no reason to suppose that when it crosses the river into Pennsylvania it will suddenly become bad; and if the same beef can safely be sold after twelve months' storage in North Dakota, there is no good reason for the ten months' limit in New Jersey.

The weight of evidence seems to show that almost all food products, if properly prepared for cold storage, can be held for longer periods of time, without becoming unwholesome than is commercially economical. There is, therefore, no real necessity for fixing a time limit for storage to protect the public health. A time limit may serve a useful purpose

occasionally by preventing manipulation of the market, but, in the case of food products such manipulation seldom does anything except break the manipulators. Corners in perishable foods, while possible, have rarely proven successful. If a time limit is deemed desirable, it should logically extend from one producing season to the next, say a year, and such a limit is of little avail in restricting market manipulations, except perhaps in the case of butter.

The cold storage legislation at present in force is, in part at least, the result of a popular prejudice against cold stored food, which has no foundation in fact but has been fostered to a considerable extent by the marketing methods heretofore in vogue, which have prevented the consumer from knowing that he was getting cold storage food at all. Retailers, as a rule, have misrepresented cold storage goods, offering them for sale as fresh, and by laying unwarranted emphasis upon this attribute of freshness, have helped to create the antagonism against cold stored products, which undoubtedly exists at the present time in the minds of large numbers of intelligent people. Prejudice dies hard, and it will take years of education to eradicate this one. No article (except perhaps a patent medicine) can be marketed in a manner involving deception without sooner or later coming into general disrepute. This is well illustrated in the case of oleomargarine, a perfectly wholesome and proper food, which is avoided by a great many people because it has been, and still is, constantly offered for sale as butter. When cold stored foods are sold for what they really are, as is now required by the laws in several of our states, the purchasing public, having acquired the freedom of choice so long denied them, will be in a position to purchase cold storage foods strictly on their merits; and this, I believe, will result in great benefit to the industry.

Five years ago we knew very little about cold storage. We have still much to learn, but one fact has been well established. The quality of an article of food depends not nearly so much on the time it has been stored, proper conditions of storage being assured, as on its condition when placed in storage, and on the treatment which it receives after it comes out. The most important function of a cold storage law, therefore, is not to regulate cold storage at all but to provide for suitable preparation for storage and proper marketing.

This principle is generally recognized in the more recent cold storage acts, which invariably prohibit the placing in storage of unfit materials, and provide for some sort of inspection to prevent the entrance of such materials. Inspection, however, is not enough. In order that the present enormous waste of good food, due to improper method of preparation for storage, may be checked, a widespread campaign of education must be inaugurated, supplemented by close supervision of the production and handling of such goods. Much has already been accomplished along educational lines by the Government, but a large part of the supervision necessarily devolves on the states. Such supervision is costly, demanding the services of highly trained men and many of them, and at the present time is not adequately carried out anywhere. I am convinced that if properly conducted in a spirit of co-operation between the producers and the authorities, it will pay.

All of the cold storage laws provide that goods which enter cold storage shall be marked with the date of entry. Most of them also require the date of removal to be marked on them or the packages containing them. The latter date is the more important of the two. It may be of interest to the purchaser of cold storage food to know when it went into storage. He is certainly entitled to know it if he wants to; but it is very important that he should know the date when it came out, because this will enable him to draw some conclusion as to its quality at the time of purchase.

In some of the state laws, such as the New Jersey law, it is further required that if foods have been stored in other states, the date of original entry into storage shall also appear on the package. Our experience has shown that it is absolutely impossible to enforce this provision. We cannot go to Kansas, or Minnesota, or Illinois, or Texas and compel the warehousemen there to mark their crates of eggs to comply with our law. Nor is it either reasonable or just to refuse entry into storage in New Jersey of perfectly good eggs simply because some one without the jurisdiction of the state has neglected to comply with a law which is not binding on him. The only way possible to compel the marking of foods which go into interstate commerce with the date of the original entry into storage is by Federal enactment.

A number of attempts have already been made to have

Congress enact a cold storage law. These attempts have failed because of the character of the legislation which was proposed. The cold storage warehousemen recognize the advantages of reasonable Federal regulation, and, I am sure, would welcome the enactment of a Federal law which would throw all possible safeguards around the interstate traffic in cold stored foods. They very properly object, however, to measures which hamper their business without benefiting the consumer. And it is such measures as these which have heretofore been presented to Congress for enactment. This is well illustrated by the history of the Heyburn bill, with which you are all familiar. This was an attempt by a Senate committee to draft a cold storage law. The committee set about its work in the right way. It held numerous hearings, at which many representatives of the cold storage industry and many scientific men familiar with the subject presented their views. The printed report of these hearings is a volume of over three hundred pages. Of course, all those who testified did not agree, but practically all that was known at that time about both the scientific and economic sides of the industry was fully and clearly presented. What then did the committee do? With this mass of evidence before them they proceeded to draft a bill so ridiculous and so utterly at variance with the opinions expressed in the testimony that it was simply laughed at and forgotten. Had they prepared a reasonable bill it would undoubtedly have passed. There is no doubt that a reasonable cold storage bill, if presented to Congress today, would meet with little opposition.

What then should such a bill provide? I do not intend to go into details with respect to the form such a measure should take. The principles upon which it should be based have been briefly discussed, and have been already embodied in the model cold storage act prepared by a committee of this organization, and also in a very similar act prepared by the Commissioners on Uniform State Laws.

Of course, a Federal act, by reason of the limited jurisdiction of the Federal government, would differ materially from the bills just mentioned, but it will provide for the proper marking of cold stored goods entering interstate commerce. It will prohibit the transportation of cold stored foods which are not in proper condition or not of proper quality to be placed in storage, or which may be decomposed or otherwise unfit for food. It will probably fix a time limit for cold storage, and it will not attempt, as the Heyburn bill did, to regulate those phases of the cold storage industry which do not properly come within the Federal jurisdiction, but which ought to be, and in some places are now, regulated by the states. Such a law as this would be a benefit to the consumer, because it would enable the states to really enforce their own acts; and it would be a benefit to the industry by helping to remove some of the inconsistencies and incompatibilities of our state laws.

And now in conclusion, I am tempted to quote to you a portion of a statement I made to the Heyburn committee three years ago. Three years is a long time for a man to be of one mind, but I find that my views on this subject have not materially changed.

This is the statement in part:

"The cold storage industry is intimately connected with interstate commerce. Articles intended for cold storage, or which have been kept in cold storage, are constantly being transported from one state to another, and so come within the jurisdiction of the Federal Government. I do not think that any one will seriously question the propriety of regulating the storage of perishable foods by law. I am confident that the gentlemen opposing this bill will admit the desirability of such regulation. They merely differ with us as to the form and extent of such regulation. I am sure that they will also agree with me when I state that the initial move toward such regulation should be made by the Federal Government and not by the states. A suitable law regulating interstate commerce in foods which have been kept in cold storage will serve as a model after which the states can pattern supplementary legislation, as they have done in the case of the Food and Drugs Act of June 30, 1906. To have the states take the lead in cold storage legislation will inevitably result in the same confusion and hardship both to the consumer and to the producer, as now exists, and has existed to a much greater extent in the past, with the respect to the sale of food and drugs, because of the variation in the laws of different states.

"It is impossible for the states, in the absence of Federal legislation, to properly control the sale of cold storage foods. Take for example the State of New Jersey. About 80 per cent of the cold stored foods offered for sale in the state

are produced or stored outside. Any state law imposing restrictions on the industry greater or more burdensome than those which obtain in neighboring states will operate, not to protect the consumer, but merely to drive the warehouses into other states, and so beyond our jurisdiction. As long as foods in violation of state laws may legally enter into interstate commerce, the enforcement of state laws in an equitable manner and without discrimination is impossible, because we cannot control conditions beyond the state line. With a Federal law regulating the interstate commerce of foods which have been kept in cold storage, it will be a simple matter to secure adequate legislation in the various states, and the enforcement of such laws will then be possible."

President Foust: You have heard the reading of this paper. If there is no objection, we will pass the discussion of it. Possibly we can handle this paper better by putting it into the Question and Answer Hour; so if there is no objection we will take up the reading of the next and the last paper, and then go into the Question Box, or Question Hour, or for as long a time as we care to remain in session. There seems to be no objection and we will therefore hear the next paper, which is, "Round Table; Methods of Conducting the Commissioner's Office Work," by Com. J. G. Winkjer, of Minnesota.

DAIRY AND FOOD COMMISSION, ST. PAUL, MINN. Methods of Conducting the Commissioner's Office Work.

MR. JOEL G. WINKJER.

The office work of a commission of this kind can be divided into parts which are more or less used in all places where similar duties are performed. Without any effort to put them in any sort of order, they are enumerated below:

Accounting.

Correspondence.

Records of inspections, expenses, samples, licenses, court cases, statistics.

Legal work.

Publicity.

The accounting requires some special adaptation to meet existing conditions, but in the main it is only an application of well established bookkeeping principles.

The correspondence also is a well established part of any office work, and needs but slight modification to serve the purpose of the commission. In this work we have found the multigraph of great service for circular letter work and to get out printed matter needed in a hurry.

The matter of records, however, is so different from the usual methods of business houses that very little of it can be used, and to look for help in this line is like hunting in the scrap heap to find a piece for a new machine. The purpose of records in a business establishment is to show whether or not the whole or a part of the business is in a prosperous condition and will return a profit for the money and effort expended. In our case the object of records is to show what service the commission has been to the state, and this cannot be figured in dollars and cents.

For each line of work that has any uniformity a blank is prepared, and the aim should be to have these blanks as simple as possible and yet give the desired information, a quality that is often difficult to obtain. It has been our aim to get uniformity in size of inspection blanks and to use a loose-leaved cover, in which a small supply of the various lines of inspection may be carried without burdening the inspectors with a number of large pads. It is our aim to have the inspection and other reports sent into the office at a given time and all at once, so they may be checked up together. For the purpose of this paper, a division of the records has been made, and a little space will be given each in turn.

Inspection records are kept for creameries, cheese factories, dairies, sanitary records for various food establishments, and canning factories. These we have planned, in a general way, after the dairy inspection card recommended by the United States Government, in which the percentage basis is made use of.

Reports of expenses are sent in once a week. With this report comes all other reports, for in connection with expenses is a very short record of the week's work, and all the reports can be checked at this time. The checking of expense accounts for each week is much more easily done than for the whole month, and the total of the weekly reports is

in turn checked by the bookkeeper. In this way a more uniform expense account can be maintained.

Records of samples are kept by a card system, and do not differ materially from those used by other commissions.

Licenses are conveniently handled by a card system, which is not unlike the ordinary business practice.

Court case reports are also simple and can easily be made to serve their purpose.

Statistics are among the simple records where only records are taken into consideration, but this is a line that can be endlessly elaborated. However, statistical compilation can be made only of the most urgent matters, and only to the extent the means of the commission allow.

In legal matters it is my opinion that it would be best if provision were made for a well qualified lawyer to handle this end of the work, but in our office we post ourselves as far as possible on legal matters and draw upon the state attorney general for help on special occasions, which has worked out very satisfactorily, with the exception that the attorney general's office is also crowded with work, and many times we hesitate to trouble them with matters of lesser importance.

Publicity is a part of the work of the commission that is of great importance. I realize this fact, but am not able to give any plan of action along this line that will fill the place I desire. Publicity having for its object the making of a great deal of noise in order to attract attention is not the kind I have in mind. It is the kind which acquaints the public with the food laws and leads it to think and act in conformity with sane regulations and to demand from the legislature laws that will best serve the greatest number of people. This kind of publicity has educational value and when properly used forms, in my opinion, the most important part of the enforcement of the law. Any methods, however, along this line I cannot suggest; on the other hand, I ask for information.

In general, any method of conducting the office of a dairy, food or drug commission must be modified not only to suit conditions existing in the particular state, but also to suit the personalities constituting the force. The relation of the commissioner to the rest of the office is in itself a subject for study. In short, my ideal condition is where the work of the commission is laid out in a simple, systematic manner, with a capable person at the head of each line of work, who can bring to the commissioner reports in a concise and comprehensible form. Freed from any detail work, the commissioner should have time to give careful study to each line and place himself in a position to discuss each part with the person responsible, and in this way be able to direct and carry out a harmonious plan of action.

I wish it understood that the taking of two parts on the program, *Methods of Conducting the Commissioner's Office*, and *the Value and Methods of Conducting So-Called Pure Food Shows*, is not my choice; on the contrary, a protest was entered. It is not my way, however, to shirk a duty when assigned to it, but to do the best I can and hope that something has been suggested here to open up a discussion, for I consider this subject one of greatest importance, as the office is the clearing house for all the activities of the commission.

President Foust: This paper is now open, and I would ask some one to kindly start the discussion.

Dr. S. J. Crumbine: Mr. President: At this time I rise to speak of it before I forget it as leading towards efficiency in office management. About a month ago we held in our own offices what we called our first Annual Efficiency Conference, to which were invited all the divisions of the State Board of Health, including the divisions of Foods and Drugs, the analyst from our laboratory, State University, State Agricultural College, our traveling inspectors, our stenographers, our clerks and our janitors; and we had a two days' conference in which we asked all of them to take part. We had our clerks and stenographers read papers on assigned topics. Among other things, I had a "Kick Box" with a slit in the top, in which anybody was permitted to put a suggestion or a kick as to how we might do it better, or what mistakes we have made, or what suggestions might properly be followed. We spent two days in that sort of thing.

The ordinary work of the entire department was stopped, excepting two hours in the morning, to take care of the most urgent mail; and I want to recommend to the commissioners that it is one of the most useful things we ever did. It is a get-together movement. That is particularly important where the Food and Drugs division is operated by the State Board of Health. We have our various divisions, and unless there is something of this kind occurs we are inclined to be working independently of one another. We try to impress this idea upon the entire membership that each cog was a very important cog in the machinery of the whole wheel, and, whether in the division of vital statistics or in the division of food and drugs or in the division of water and sewage, they were an important part of the whole. We got some mighty valuable suggestions, and particularly valuable suggestions, out of this "Kick Box." Some of us came in for some scoring, which is a wholesome thing sometimes. Sometimes we get sort of chesty about some things and we need to get the other fellow's viewpoint. The doors were locked. It was a confidential meeting. The reporters were not permitted to get in there. They wanted to come in very much when they heard what was going on. But I recommend that the commissioners here assembled have this annual conference, get together, work to make your clerks and stenographers realize that they are a tremendously important part of the work; it will do them good. I had confidential talks with the members of the department afterwards and they all felt mightily pleased about it. I think it is a great thing.

Com. F. H. Fricke: I just wish to rise to say that we have quarterly meetings in our office, and all the inspectors and every one in our department take part in it. We started the first of this year and have had the third conference just before I left to come here.

Dr. S. J. Crumbine: Mr. President: I didn't finish what I had to say. I want to say something else, what this conference terminated in. It terminated in this, that every Monday morning we have a conference of division chiefs. That is on the program for all time to come so far as I know, certainly as long as I stay at the head of the department. We have monthly conferences of the division of Foods and Drugs in which the inspectors come in off the road the first of every month, unless that happens to be Sunday, and we have a bulletin board posted in which the movements of the entire department are posted, including the chiefs and so on down, so that everybody knows what everybody else is doing. There is nothing to be covered up. We are trying to impress this idea, that everybody's work for the department is very important; he is a very important member of that department, not simply machinery, but a part of the personnel of the whole, and that their work is quite as important as anyone else.

President Foust: Is there anything else?

Com. J. G. Winkjer of Minnesota: I would like to have the subject of publicity discussed here, as to the methods that each commissioner uses in that line. That is one of the things that has troubled me, and I would like to hear the different ways in which it has been conducted.

Com. Jas. W. Helme: Mr. President: The question Com. Winkjer raises, the question of books and records of the department, we have found to be quite a stumbling block for the reason that there are no ordinary records that will take care of the dairies depart-

ment. We finally got an efficiency expert there from one of these big firms that make blank books. He stayed with us a week, got thoroughly posted with the working of the department and then he proceeded to get us up a set of books that fitted the office. We have one volume there where we can turn at once to the name of any dealer in the state of Michigan and find out when he was inspected, how many times, and what was the matter with him, in five seconds, where it used to take us about ten days when we wanted to hunt up a man's record. We have got a very good set of books, and I presume that same firm would furnish copies of the sheets to any of you so that you can see whether they are adapted to your business. They certainly made a great success in our office. The commissioner speaks about the line of publicity. The line of publicity of our department is this: I endeavor to issue once each week—I do not always do it, because I can't get time—but I endeavor to issue once each week an article upon foods or drugs for the press. Now that article sometimes gives information as to the value of food; sometimes it explains the various foods; sometimes it exposes various fakes, medicines. Those articles are sent out to all the daily newspapers of the state to be released on certain dates. That gives them all a chance. If you sent them out without that and one paper publishes them the rest won't publish them in the far part of the state if they don't get them in time to publish them as soon as the Detroit papers do they won't publish them at all. By making a release date on each one that gives everybody a chance to publish them on a certain date. There are two things you have got to do to get them published. It is easy enough to issue bulletins, but to get them published is a different thing. First, you have got to make them short. They shouldn't cover over a sheet of mimeograph paper. Second, you have got to make them readable, make them sharp and to the point. If you can make them short and make them readable you can get them published, otherwise you can't. Now when a hundred daily newspapers are publishing your bulletins you are getting considerable publicity. In addition to that, of course, we issue a monthly bulletin which any one in the state can have if he wants it, giving full details of the workings of the department; but these special press bulletins with me have been very successful, and they have been very widely published, not only in our state but in other states. I noticed one of the Minneapolis papers the other day published one of our bulletins exposing some patent medicines, taking up a full page of their paper, and they have been published quite extensively outside of the state. I attribute that to the fact that they are short, to the point and readable.

President Foust: I was very much pleased with Dr. Crumbine's talk, and I am sure we all got from him, as well as from the paper of the Commissioner of Minnesota, a lot of good ideas. In Pennsylvania I hold a meeting with the agents at the west, in Pittsburgh, once a month; with the agents to the east, in Philadelphia, once a month, and in the central part of the state at the office in Harrisburg about once a month. Then I have a meeting about twice a year with the chemists, so that we may have uniformity in the analyses of the products, as well as the general policies in the analytical branch of the work. Then I have a meeting once a year usually jointly with the special agents—some states designate them as inspectors—in our state under

our constitution we cannot conduct any system of inspection, hence in order to guard against anything of that kind our law designates as special agents what some states designate as inspectors. All of the products that are analyzed are purchased just as the consuming public purchases them. After they are purchased they are the property of the commonwealth. They are then delivered to the chemists under seal for analysis, and whatever is analyzed or examined is the property of the state. We hold these conferences. But I never heard or never knew of a meeting such as Dr. Crumbine mentions to us here today. I believe that the "Kick Box," as he terms it, is a good idea. The kick is put in and no one knows who put it in, the box is opened and its contents made known and discussed, and from the questions and the discussion of them they get no doubt good ideas and great benefit that they would not derive in any other way. Now, would it not be wise here this afternoon for us to take an hour or so on questions and answers? Let us take ten minutes to each question and the answers to it, and then pass on to the next, and on to the next, and in that way put in an hour or so before we adjourn for this year 1914. This session this afternoon ends the meeting of Section A for this year. Who will suggest the first question? I will designate some one to answer it.

Asst. Com. John McCabe: I would like to ask the following: What should be the Food Commissioner's policy relative to passing upon labels and giving interpretation of the law in his correspondence?

President Foust: I will ask Commissioner Crumbine to answer that.

Dr. S. J. Crumbine: What should be the Commissioner's policy relative to passing upon labels and giving interpretation of the law in his correspondence? Mr. President, this is a pretty difficult question to answer. It is a question that is confronting every commissioner almost every day in the week. He is getting requests to pass upon labels, as they call it. Certainly we cannot pass officially upon the legality of a label in advance of its use. But we ought to, and I think most of us are ready to offer suggestions, or give our opinions, as to the wording or the proper words to appear upon the label. I think it should be impressed, however, in every instance, particularly if it is in writing, or even to make the statement that this is simply your opinion and is in no way to be considered an official or authoritative or a final judgment upon the matter. Sometimes our hindsight is better than our foresight, as the old saying goes, and it is altogether likely that on occasion we might have cause to reverse our opinion and thereby be in hot water. We ought to be very cautious in giving our opinions in matters of labels. I think there is no objection to giving our opinions concerning the interpretation of a law, and I am not altogether certain but what the commissioner is oftentimes in a better position to give the real interpretation of the law than the average attorney. Indeed, there are very few attorneys, excepting those who have specialized in the matter, whose opinions are worth very much on the food and drug law. That is my own conviction, and confidentially I have ceased to ask the opinion of lawyers outside of those who are specially trained along that line, because I feel as if I am worse off after I have had their opinion than I was before.

Dr. F. A. Jackson: Mr. Chairman: In Rhode Island we do it as a matter of courtesy, and we have felt

obliged to do it because many have come to us with the statement that they have been to attorneys and could get no real advice. They were referred to the Food and Drug Commission; so all of our instructions to the inquirers have been as a matter of courtesy, and always with the proviso that we might have to change our opinion. As the Chairman says, the court might rule otherwise.

Asst. Com. John Newman: Mr. President: Out in Illinois I think possibly we go a little further than Dr. Crumbine goes, from the way he answers that question. If it is possible to tell a man whether his label is right, we want to do it. We ask him to tell us what he is going to put behind the label and then we ask him like this: "If the goods behind the label are as you have stated in your letter, the label should be so and so." We nail him down to the facts that the goods behind the label shall be as he has told us in his letter. We feel that our department should be as much an educational department as one of enforcement or control. We think the manufacturer in our state, whether small or large, or the distributor, is entitled to all the information he can get out of our department. He is a taxpayer just the same as the rest of us, and we go the limit to give information. I would sooner be wrong on one label in ten thousand than to refuse nine hundred and ninety-nine, or nine thousand, nine hundred and ninety-nine people. I think you get more credit for it, not only in the matter of courtesy, as Dr. Jackson says, but I think it is something they are entitled to.

Dr. F. A. Jackson: I am very glad to hear that, Mr. Newman, because that is the position we take.

Hon. Geo. L. Flanders: Mr. President: In the state of New York we go farther than they do in Illinois. We send inspectors over the state to the manufacturing establishments and examine all their labels, and if there are any labels that there is any question about the inspector gets copies and sends them to the office; and we write a letter giving our opinion of those labels. We never refuse to answer a man who sends in to know. If he sends a label, we answer it in somewhat the following manner: "Dear Sir: Your communication of such a date enclosing label duly received. The following is a copy of the label received," and we put that into our letter so there can be no question about what the label is. "In our judgment this does, or does not, comply with the law," as the case may be. If it does not comply with the law, we tell him why, and our theory is this: That every time we set a man right as we interpret the statute who wants to get right we probably have saved a lawsuit, or a great many. That is the way we are helping the fellows who want to do right, to get into the right line, and then we reduce the amount of work we have to do, and we make every one of those fellows an aid in our work. I believe it is a good policy. We are carrying on a system of education throughout the state in that way. It chances to be a part of the work that I have to do, to pass on all those labels. We do not tell a man what his label should be. If it does not violate the law—does not conflict with it—we tell him so. If he wants to know what label would not violate the law, if we say his does, we give him any one of two or three forms that we can conceive of. Here is another principle that guides us: If there is more than one form that will comply with the law, the choice of the forms belongs to the man who is putting up the goods. All we can ask him to do is to conform to the statute,

and if there is any one of five, six or a dozen labels for his goods that will conform to our statute the choice is his and not ours. We have no arbitrary power in that line. Our point is to help the man who wants to get into line, and that is helping our work.

Mr. R. M. Allen: Mr. President: I think Kentucky goes still further than New York. We inserted in our law of 1908 a provision under which we can request manufacturers to send their labels to the office. For example we take up extracts. Now, the old way of taking up extracts was every now and then to have a bottle of extract sent in and in the course of five or six years you would probably cover that subject in a desultory way. Now, we require the extract manufacturers—and I happen to use that illustration because I have it in mind—to send in their labels. And when we sit down and go to work we sort them out in bunches—this bunch of labels received complies with the law, and this particular bunch needs writing to. Then you take it up with the manufacturer direct without the necessity or expense of getting samples, provided it is not something that is very flagrant that you think ought to be made a case. We have found the policy of passing on labels to be one of the most helpful and popular lines of work that we do. As several of the commissioners have well said, it enables the commissioner at the first hand to advance his interpretation of the law based on his constant experience with the law. Then when we have made up our minds with respect to the label, if we think it involves a question of uniformity with the Federal Government—in many instances we know what their interpretation is and so gauge ourselves—we write a letter to the Bureau, and probably trouble them quite a little bit in submitting that label and asking their opinion with respect to it before we answer the letter. In the meantime, having notified the man that there are questions involved on which we want the action of the Government, for that reason we delay answering. Frequently we don't exactly agree with the department and sometimes they may modify their view, or we may modify ours; but when our opinion finally does go out there is uniformity. That is our experience in practically every instance, it is accepted by the trade and that is the end of it. That practice some of them have thought just a little troublesome. I find that we cannot go out and ask the trade to send all their labels in, but we must take them up by subjects, and I recommend that method to the commissioners from the standpoint of system in your work and taking up these things subject by subject.

Hon. Geo. L. Flanders: Let me interject one more question into this. The gentleman from Kentucky says he writes the National Government when a question arises involving uniformity, and his custom is different from ours. I would like to bring it out and see what the commissioners think about it. When a man writes me and asks about what the national law is I tell him that the place to get that is at Washington, and I do not undertake to inject myself in between Washington and that man. My reason is this: If by any means or chance I should misinterpret a national law to a person in my state, and he followed my advice and got into trouble, I would be in trouble. The difficulty of the situation may be illustrated by the story that an old practitioner told me once. We were discussing a question of law, and the question arose what it meant. He finally said to me: "I guess I can give as good a guess as to what it means as the court can." Well, he

stopped and finally said: "The trouble is the court has the last guess." The people at Washington have to interpret their own statutes, and the responsibility is theirs, and I leave it there. I do not really dare, Mr. President, to interfere for fear I will make a mistake and get myself into trouble.

Mr. R. M. Allen: Mr. President: I think the gentleman misunderstands me. I do not attempt to give an opinion in respect to the Federal law. My point was that in passing on a label with respect to our own law, by seeking the advice of the Federal Government, it is possible for me under my law to give an opinion that will be in harmony with the Federal opinion.

Dr. S. J. Crumbine: Mr. President: I would like to ask these commissioners who go so much farther than Kansas does—as a matter of fact they do not, we have a similar practice—if they approve labels.

President Foust: Kentucky does undoubtedly, according to Commissioner Allen.

Mr. R. M. Allen: Seems to me the trade will understand that you are not the court, not the legislature; that you have not in your omnipotence assumed omniscience, and that it is nothing but your opinion under the law; but I have found this, and to the commissioners just starting in the work I would say, be careful in approving labels. If you do not, several years afterwards, when another man comes in, or when you get a little better informed, you are going to find an opinion given in the past is entirely at variance with what your experience will demonstrate in later years. But I like to have it so that when a man comes in and says: "I submitted this label in Kentucky in 1905, and put my goods up so," why he can feel reasonably sure that he is on just about as safe ground as if he had taken it to the Court of Appeals and had it decided. After all, it is not so much how you write your letter as to make the trade understand it is nothing but opinion, can't be anything but opinion.

Dr. F. A. Jackson: I would like to inquire of Com. Allen if the methods they pursue in Kentucky are not absolutely an approval of the label submitted?

Mr. R. M. Allen: In effect it is, and I think, in fact, that the work in the United States needs that kind of administrative—whatever you want to call it—function, which will allow a man to find at once a reasonably correct interpretation of the law without the expense of litigation.

Dr. F. A. Jackson: What would be your position if the court ruled otherwise?

Mr. R. M. Allen: Of course, we would necessarily have to modify ourselves; but I do not believe from the strict label standard that is in my mind, that we would ever be overruled, so far as being too lenient is concerned. That kind of a policy eliminates prosecutions; I do not mean prosecutions to compel people to be good, but it eliminates prosecutions to find out what the law is, the expense of litigation, and with a limited appropriation it is necessary for us to do that.

Asst. Com. John McCabe: In Minnesota we adopted this method: We find goods upon the market which are misbranded, and we notify the manufacturer or the jobber that his label does not meet the requirements of the law. He then inquires in what respect, or it frequently happens we tell him why, and he submits a corrected label. We ask for labels in duplicate, and if they meet the requirements of the Minnesota law we approve that label by the statement that "Your label meets the requirements of the food laws of Minnesota," and if a commissioner, or those in charge of his

office entrusted with that business, cannot give a decision upon labels, I ask you who can?

Com. F. H. Stadtmueller: Mr. President: I am a little surprised by the trend of the discussion on this question. I think it is obscure. I think no commissioner is familiar with any law which gives specific authority for the commissioner to pass upon labels. That is a function of the courts; it is a construction of law. Now, of course, we can in our capacity assume advisory powers that are not binding, they are not obligatory upon the commissioners and each one can proceed with the case before him so far as discretion indicates it would be wise to so proceed. I have just had reversed a label that was approved by one of my predecessors in office, and the parties who first brought it to my attention pointed out that this had been approved. I told him clearly, "My friend, I concede all of that, but the very fact that I do not accept or coincide with the action of the past commissioner simply shows the difference of opinion in our attitude towards the law." Now I may be just as wrong as the other fellow or I may be right and you in your personal opinion may object to my statements, and you have a right to do so. The only final opinion, and the only authority clothed with power to decide the question is the court.

President Foust: The ten minutes having elapsed, we will take up the next question.

Mr. R. M. Allen: Somewhere on the program, Mr. President, was the question of special qualifications by the agents or inspectors, and I would like to hear discussed the question of qualification of inspectors, as to how they should be appointed, as to the compensation and expenses that their work entitles them to.

President Foust: I will ask the commissioner from Michigan to answer that question, and to include along with it a statement of the pay allowed your office force, as to stenographers, what you pay them, your inspectors in the field, their qualifications, and about what their expense allowance is and what it consists of.

Com. Jas. W. Helme: I have eight regularly paid inspectors, called regular inspectors under the law, and I have special inspectors that I have the right to appoint. The law fixes their compensation, which I do not regard as a good thing. The law fixes the compensation of the inspectors at one thousand dollars a year. I do not regard that as good. I would like to have the power to fix it myself, and I would fix it lower when they first come in and then as they made good I would raise it, and that would be an incentive to them; but as it is now the law fixes it at one thousand dollars flat for regular paid inspectors, and three dollars a day, which is about nine hundred and forty dollars a year, for special inspectors. But there is no difference in the inspectors, they all do the same work. Now we have eight of these regular inspectors, and about six or seven, as I see fit to appoint, of special inspectors. We have two drug inspectors at one thousand dollars a year, and we have two sugar beet inspectors, who are required to be sugar beet chemists; those I give one hundred and fifty dollars a month; I can do that under that law. Then I have a deputy commissioner who gets fifteen hundred dollars a year and expenses, and we have a chief clerk who has been there for years, and who can answer nine-tenths of the correspondence in the passing on labels and the construing of the laws. He gets fifteen hundred dollars a year. I have a financial clerk, who takes charge of the finances. We collected last year, I think, about

eighteen thousand dollars of registration fees and such things. She gets one thousand dollars a year. The balance of my clerical force: I have two or three stenographers and they get nine hundred and forty dollars a year. Then we have the chief analyst, state analyst, who gets two thousand dollars a year; an assistant analyst who gets twelve hundred dollars a year. That is fixed by law, and it is bad, it is too small a sum. And then we have a drug analyst who gets fifteen hundred dollars a year; he analyzes drugs. Then we have two or three chemists that we have to put on the roll as clerks, because the law makes no provision for their appointment, at a thousand dollars a year. The appointment of inspectors is a thing that has given me considerable trouble. Now a food inspector ordinarily in the department in the past, every time the governor is changed everybody else is changed with him, and the food inspectors are thrown in the junk, and everybody else pretty near in the department all went into the scrap heap and a new bunch came on. I did not like that, and, as I was deputy commissioner before I was commissioner, I got acquainted with the department and I knew who were efficient and who were not. When I reorganized my department I retained over half the force and the balance I got rid of. The appointment of a food inspector is the most particular job that I know of. You have got to have a man that is intelligent, that is bright, that is active, that has got a lot of sand and a lot of nerve, and won't let anybody put it over him. At the same time he should not have so much sand and so much nerve that he won't know where to stop. He has got to have a lot of judgment. Besides that, of course, he has got to be posted on the subject. Now to get such a man as that I find a pretty hard job. I want to get one or two now, and I have been looking all over Michigan for that kind of a man and have not located him yet. I have had lots of applications, several hundred of them; but I haven't got my man yet. Now I think that answers about all the questions. If it does not I will try again.

Mr. R. M. Allen: Mr. President, I raised that question at the instance of someone else, but there is no more important question before the commissioners. We started the food work in the analytical laboratories, and the inspector was originally simply given the right to purchase samples; but we found in our experience in Kentucky that all of the qualifications a manufacturer or wholesaler desires in his traveling salesman we need in the men that we send into the field to enforce the law in a broad way. For example, if you are going to send a man to inspect bakeries, it is unfair to the baker, unfair to his trade, to send a man into a bakeshop who does not know what a bakeshop ought to consist of, what are the sanitary methods or equipment a bakeshop should have; and if we send any other kind of a man into that bakeshop, except one so trained, he gets very little results, and brings back practically nothing but friction. And so it is with the dairymen. If you send out in a buggy to a dairyman's farm a man who has not the first conception of what the dairyman ought to do, who probably could find on the surface a few faults and bring them back, you do not get clean dairies. The same way in the meat line; the same way when it comes to inspecting pharmacies. A man who can go into a drug store and go over the stock, and say, you have this substance and that substance, and that substance

not properly stored for this particular reason, or your weights are not correct, or there are other little items of deficiency throughout, he gets results, and he brings back the respect of the druggist. I think we all ought to give more attention to that, in order to bring the legislatures and the boards that we work under to see and appreciate the necessity for sending the proper kind of man into the field. You probably never have seen that dairyman, and won't as long as you are in the state; neither will you see that grocer nor that druggist. The man that you send there is that druggist's or that dairyman's measure of your efficiency, of what you are trying to do, and the county agents that have been appointed under the agricultural extension departments of the country are being paid up to four thousand dollars to get excellent men to go out in the field and get results. The time has come in field work, especially in the field of sanitary work, to have a man who is trained in its principles and who has individuality and the knack of getting along and handling men to get the proper kind of results. You cannot get that out of thousand-dollar inspectors, as the Commissioner has well said. It is pretty hard to get it out of fifteen hundred or two thousand dollar inspectors. This is one of the most important branches of the service.

Com. G. G. Frary: I would like to ask Com. Helme if his men at one thousand dollars work the whole time?

Com. Jas. W. Helme: They commence Monday morning and they work until Saturday night, and they have actual expenses while they are on the road. I locate them all over the state so they will be home over Sunday.

President Foust: What do their expenses amount to, approximately, each month?

Com. Jas. W. Helme: Their expense account will run from sixty to a hundred dollars a month, depending largely on where they are located. In the upper peninsula, where we have long jumps, our inspectors will go up sometimes to a hundred dollars a month; but most of them keep below. I approve their bills every fifteen days and they get between thirty and thirty-five dollars every fifteen days, from sixty to seventy dollars a month for expenses. I am quite insistent that they shall keep expenses down, and I think that they do keep them down. I think those expenses are very low.

Dr. F. A. Jackson: Com. Helme, I would like to inquire what your office hours are, and if they have holidays—I mean the office force.

Com. Jas. W. Helme: The office force goes on duty at eight o'clock in the morning, works until noon, then goes on at one o'clock and works until four.

Dr. F. A. Jackson: What about holidays and half days Saturday?

Com. Jas. W. Helme: In June, July and August we give them half a day on Saturday.

Com. G. G. Frary: How much vacation?

Com. J. W. Helme: They are allowed two weeks.

Dr. F. A. Jackson: That is with pay, Com. Helme?

Com. Jas. W. Helme: With pay.

Dr. F. A. Jackson: The same with respect to inspectors?

Com. Jas. W. Helme: Yes, an inspector has a right to take his vacation at different times if he wants to. If he is off during the year a day or two it counts on his vacation.

Dr. F. A. Jackson: Do you allow for sickness, sup-

posing any of the office force is sick or the inspectors? Is that deducted?

Com. Jas. W. Helme: I would not penalize a man because of misfortune. I keep those men under pay until they get well or I see that they are not going to get well. I kept one man under pay for eight months. I saw he wasn't going to get well and I told him I guessed he would have to quit.

Dr. F. A. Jackson: Mr. Chairman and Gentlemen of this Section of the Food Officials: There are very few of you here that are in the same condition that we are in Rhode Island. Two years ago we had an extra appropriation allowed us to employ two agents, we do not call them inspectors, they are official agents of the Board. We employed two young men that had been pharmacists and both had taken a short course in medicine, and they did very good work. But a year ago we were not allowed any extra appropriation, so after considerable discussion last November the Commission appointed myself as the official agent. The reason of that was, they wanted somebody to go out who was directly interested in the work of the Commission to find out about what it would cost for inspectors. I have been doing that work as well as the detail work of the Commission since last November. We limit them to sixty cents a meal. If a meal costs them a dollar they have to get meals enough at less to bring them down to the sixty cent average. And we limit them to so much for lodging. The state of Rhode Island is about two hours ride from north to south, and perhaps an hour and a half across; so the traveling expenses are not very heavy. My expenses have averaged about one hundred and twenty-five dollars a month. We allow an inspector four dollars a day. We commence with a man at first at three dollars and fifty cents for six months, and, if he is efficient at the end of six months he gets four dollars a day, if I remember right. The plan is similar to that of some of our adjoining states. In our state an inspector cannot do efficient work at less than fifteen hundred dollars a year, and in your larger states I believe your traveling expenses being so much more, that from eighteen hundred to two thousand dollars would be a good fair average.

Asst. Com. John B. Newman: Mr. President: I have been asked to explain to the Commissioner how the Illinois State Food Commission obtain their inspectors at the present time. Two and one-half years ago our legislature passed a civil service law placing the food department with most of the other state departments under civil service. The inspectors have to pass a civil service examination. Two years ago there was an examination and those passing constituted an eligible list. The examinations for most departments had been all written. As you and I know, a man may pass a good written examination who is untidy in his appearance, very rough in his manner of speech, does not in any way make a good appearance. And we felt that the taxpayers of our state were entitled to have their places inspected by men that were not only posted but were gentlemanly in their manner and clean in their habits and dress, and we prefer to have that kind of people around the department. So we asked the Civil Service Board if they could not arrange to have part of the examination an oral one. While the men were answering the questions the examiners would have a chance to note their appearance, their dress and their manner of speech. The Civil Service Board very readily adopted this suggestion, and from then on the men were examined as follows: Their train-

ing and experience counted for three points; written examination on the special subject, four points, and the oral examination, three points; total of ten. Notices were sent out again this spring for another examination of inspectors and our State Civil Service Board, co-operating to the fullest extent with the department, secured the services of Dr. Crumbine of Kansas, Dr. Barnard of Indiana to prepare the questions for the written examination and to mark the answers. And these two gentlemen, in company with Chief Inspector Young, Central Division of the Federal Food and Drug Department, conducted the oral examination here in Chicago. Only such applicants as had passed the written examination were permitted to go before the oral examiners. As I said before, here they were not only asked further questions, but were sized up very carefully by the Board. In this way we are provided with men who are not only well posted but who are gentlemanly in their manner and appearance. They will be a credit to the department and welcomed by the people with whom they come in contact.

President Foust: What pay do they get?

Asst. Com. John Newman: The pay was regulated in a bill three years ago before the civil service law was passed. It was a bill that I went before the legislature and argued myself personally. It reads this way: The first two years a man shall draw twelve hundred dollars. Mind you, then there was no civil service law, the idea being that before the end of two years we could find out whether they were good or bad and drop them off if necessary. If they were good enough to keep the third year they started at fourteen hundred dollars, the next year fifteen hundred, sixteen, seventeen and up to eighteen hundred; eighteen hundred was the limit. We hope to get it raised. That applies to our chemists; they started in at twelve hundred for the first two years and ran up to eighteen hundred dollars.

President Foust: What do the expenses amount to?

Asst. Com. John Newman: The expenses amount to a thousand dollars a year for both chemists and inspectors. When we get on this sanitary work there is not so much to be done in the laboratory, more field work is necessary. We are sending out the chemists to do milk work and do the sanitary inspection and things of that kind, and they have a thousand dollar expense account. Our stenographers get a thousand dollars a year, our chief clerk eighteen hundred, our chief analyst twenty-five hundred dollars. I don't know whether it is a proper thing to bring up here in this association, and I don't know but what it is; that we should go on record officially against so low compensation; that you cannot get proper inspectors, and the same as to chemists. I do not know why we should not go on record, so that the different legislatures may see the idea of the officials when they get together. They cannot expect to get good inspectors at a thousand dollars. Further, I will say, two men that we are sending out to do dairy sanitary work we sent down to the University of Illinois, in the creamery part of the Experimental Station, and they spent a month there getting a special training so that they will be better equipped to inspect ice cream factories and creameries. We will soon have an equipment which will enable us to give special training and equip our men to make them good bakery inspectors. We feel very proud of the fact that we were able by that law to call on such men as Dr. Crumbine and Dr.

Barnard, and the Chief Inspector to have them pass upon the qualifications of the men who now stand as eligibles.

Com. J. G. Winkjer: I would like to ask if you take their word for it for sickness, or do you have a physician's certificate?

Asst. Com. John Newman: They must present a doctor's certificate; it is only fair to say that some of them who have been sick longer than two weeks have been allowed their pay. The Civil Service Board has to approve our pay-roll before it goes to the auditor. They get two weeks vacation with pay and two weeks sick leave, but they must have a doctor's certificate.

President Foust: The time has arrived to close this question. Let us hear another.

Dr. S. J. Crumbine: I believe Kansas has a better way than perhaps any of them, and that is this: It is not civil service excepting that applications are made upon a competitive examination, and then they serve at the pleasure of the Board. You might have a man that would pass a splendid examination, he may even go through a scrutiny such as your applicants did in Chicago, but finally would be a very undesirable inspector. As we have it in our state he only serves during the pleasure of the Board. We cannot appoint a man, however, until he has passed this competitive examination. Politics with us are eliminated, and I think that we are in a better way than real civil service; that is to say, we are able to discharge a man simply because of mediocre qualifications. We also have a graded salary list, beginning the first year at twelve hundred dollars, the second year fourteen hundred dollars, and the third year fifteen hundred dollars, with an expense account of a thousand dollars a year; and that is not enough in our state—a state four hundred and two miles long. The distances are great, and it is not enough for an expense account, and I do not believe it is enough for any state. I certainly would not ask an inspector to stop at any hotel that I would not want to stop at. I realize the fact, however, that we have to be governed by the appropriation we have in hand.

President Foust: Let us have the next question.

Com. J. G. Winkjer: Mr. President, in the discussion of special counsel for a pure food commission I would like to ask a question as to the salary at which such counsel could be procured. I know that the very cheap man is not good for anything. I know also that it would be the best thing for the department to get the high priced man; but the question is, what can we get a man for that will be considered satisfactory? What would be the right price? I would like to have somebody who has had experience answer it.

President Foust: For the information of the Commissioner from Minnesota I desire to say that we have in Pennsylvania a special counsel who has had ten years' experience in the trial of food cases in different parts of the state. He goes all over the state and a number of the commissioners here have met him. He is exceptionably able, a very clever trial lawyer. We started out paying him twenty-five dollars a day and his expenses when away from home, and in preparing paper, books, and attending the Superior and Supreme courts we allowed him the same. The time came when he found his practice drifting away from him at his home, and he insisted on being placed on salary, or his allowance per day increased, and I asked him what he thought he ought

to have to justify him per day, and he said that he knew of cases where he had lost good clients by being away, and he asked for thirty-five dollars a day and his actual expenses when away from home. Now we only use him in the trial of important cases, and then in assisting the local attorney or the district attorney, and, of course, when cases are appealed he must follow them to the Supreme Court. In Pennsylvania we have eight million people, and we use this special counsel in special cases, assisting other counsel—and sometimes we have him when the legislature is in session to appear before some committees—committee on health and sanitation—not often. What I am getting at is this: The time that we take of this special counsel at the rate per day, and expenses which naturally follow, amounts to from twenty-five hundred to thirty-five hundred dollars a year to us in Pennsylvania with our very large population. When cases are contested they are very bitterly contested. About ninety per cent of our cases never come to trial in court, but they are disposed of before the Aldermen or they are disposed of by entering a plea of guilty without trial. Many defendants enter a plea without going to trial, after a true bill is found by the grand jury, but when they are tried the cases are very bitterly contested. We not only have our special counsel, but our local counsel are very strong men, always the best local counsel we can find in the county. Such counsel is not familiar, as a rule, with the trial of food cases, he is not familiar with the authorities, and not familiar with the handling of such cases. Consequently, when we have important cases coming to trial, we send out our special trial lawyer. Thus we have two, a local counsel and our special counsel, and in this way the very few cases that do come to trial are well looked after. I remember a few years ago we had thirty some odd cases against the Pullman Company. We had in those cases one of the ablest trial lawyers, I would say, in the country. The Pullman Company had eight or ten lawyers, and it meant a battle, but they laid down. Whatever the conditions, and no matter how bad they are, we try to meet them. We have an appropriation of \$184,400 for running our department for two years. We take in twice that from all sources. Our department is a revenue producer. It does not cost the taxpayers a cent. For special agents we have appropriated so much, for doing the analytical work so much. The commissioner is appointed by the Governor, and all other appointments and all salaries are fixed by the commissioner. The analytical work is done in six different parts of Pennsylvania—in the east at Philadelphia and West Chester, northeast at Scranton, northwest at Erie, the central part of the state at the State College, and the west at Pittsburgh; so that sometimes we may be trying cases in four different counties the same week and I find and I believe that this plan is far better than that of a central laboratory. As Dr. Crumbine stated, it is four hundred miles across the State of Kansas. Well, if we had to send our chemists out from one point, we would have to have a number of chemists, and we have not a chemist doing analytical work who has not had from four to ten years' experience in analyzing food products, and, also, they have had that long experience testifying in court as well as before magistrates, so that if we find a chemical question is raised, we send a portion of the sample in question which is the basis of the case to

one or two other chemists, so that it is not an uncommon thing for us to have four or five chemists on a case. If we find we need some assistance from Washington, as we now and then do, and appeal for help, why, we get it. Not long ago we had a hard vinegar fight and we asked for Dr. Goodenow, and prior to that Dr. Bender, who had had quite considerable experience in working out a method for the addition of water to cider vinegar. We used there the glycerol test and we established the addition of water to the cider other than the water that appears naturally in the apple. I at one time asked Dr. Ladd to come in from North Dakota in a baking powder case, and Dr. Robinson, formerly of the Michigan department. We had him there in an alum baking powder case. So we go out into other states. We have a relatively large appropriation and we can do it. The commissioners are very fair. They come in for their actual expenses and we permit our chemists to go out in the same way. In Pennsylvania we pay our agents one hundred and twenty-five dollars a month, all except one woman. We used to have two, one in Philadelphia and one in Pittsburgh. We pay the woman ninety dollars a month and her actual traveling expenses in the performance of her official duties. The men get one hundred and twenty-five dollars a month and their actual expenses. Their expenses vary according to the district that they have to cover. They vary from thirty dollars a month to ninety dollars a month. The chemists are paid so much per sample analyzed. The chemists get a dollar for analyzing milk; they get three dollars for analyzing foods where a qualitative analysis is made, and where a quantitative analysis is made they are allowed five dollars. For analyzing vinegar they get five dollars, for ice cream two dollars. Then they are allowed ten dollars a day and their actual expenses while attending court or appearing as witnesses before a magistrate. Our clerical force—there is one clerk gets ninety dollars a month, another gets one hundred; there are two that get a hundred and twenty-five dollars a month, and the messenger gets nine hundred dollars a year. I believe that gives you briefly the allowance in Pennsylvania. The attorneys, the local counsel, where cases are terminated before a magistrate, are allowed five dollars where a plea of guilty is entered without trial. They are allowed ten dollars where a case comes to trial, and when it is tried in court they are allowed twenty-five dollars. There are a great many cases that are tried without special counsel by our local attorneys, and I permit the agent to use the local attorney—we have one in each county—to consult with, where the case is instituted before a magistrate. In many of our cases they simply appear, hear the charge, hear the law read, and waive any further proceedings, and pay the minimum fine. Many of our cases are disposed of in that way. I would say that 90 per cent of them are. Ten per cent of them come into court. I would say that possibly out of that ten per cent, five per cent of them enter a plea of guilty after a true bill is found by the grand jury. About five per cent of them go to trial.

Dr. Crumbine: I would like to ask the President how he likes the old aldermanic court system in Pennsylvania?

President Foust: Well, we don't have any trouble with it.

Com. G. G. Frary: In connection with this special counsel question I have had in mind in endeavoring to

get an appropriation from the legislature for an additional assistant in the office, getting a young man who is in the law college and having him specialize on food laws and using him part of the time for legal advice. I would like to ask the advice of these other commissioners as to the advisability of anything like that.

Hon. Leo L. Flanders: Mr. President: I should dislike very much to put such important business in the hands of a young man just coming out of a law college. If you want to get an opinion, and get it in a minute, ask the office boy. If you want to get a good opinion, ask the attorney and wait a couple of days and give him a chance to think it over. I would not want to trust a young lawyer of the kind you mention with these fundamental questions. It might do in small matters.

President Foust: Are there any further questions? If there is no further business, a motion to adjourn will be in order.

Voted to adjourn sine die.

COMMENTS OF THE GENERAL COUNSEL FOR THE NATIONAL ASSOCIATION OF RETAIL DRUGGISTS.

Among the visitors to the convention was Alonzo H. Stewart, of Washington, D. C., counsel for the National Association of Retail Druggists. Mr. Stewart was delighted with the courtesy and consideration which he had received at the hands of the officers and delegates to the convention. The object of Mr. Stewart's visit was to make the personal acquaintance of the various commissioners and discuss with them the recent order of the Department of Agriculture removing the serial number and legend of guarantee from the label. Mr. Stewart called attention that the substitutes proposed for this form of guarantee did not fully protect the retailers and in the opinion of the Association which he represented, something would have to be done in order to do so. Speaking generally on the subject Mr. Stewart said:

"I found that the food commissioners from the various States had been canvassed on this subject and to my surprise, learned that they favored the removal of both the legend and serial number. I made it a point to personally talk with as many of the commissioners as possible and laid the views of our Association before them, and they were received with the greatest consideration. Generally speaking, the point raised by me was, that unless there was a mark of identification on the goods which would connect them as being the identical ones covered by the specific guarantee which is to be upon the invoice of sale, there would be no genuine protection to the retailer.

"I found that the commissioners from nearly every State agreed with me that some plan should be devised to carry out this idea of protection. They confessed that they had not given this point consideration and assured me that they did not wish to in any way have the burden of prosecution for the violation of the pure food laws placed upon the retailers. These gentlemen were kind enough to request me to communicate with them as soon as a way had been devised to meet this point and pledged me their hearty co-operation in endeavoring to solve this problem."

Upon his return to Washington, Mr. Stewart will report to the National Association of Retail Druggists the result of his observations.

Official Proceedings

Section B—Association of Official Food and Drug Chemists

President—R. E. Doolittle of New York.

Vice President—H. C. Lythgoe of Massachusetts.

Secretary—F. L. Shannon of Michigan.

THURSDAY, JULY 14, 2 P. M.

Presiding, Mr. J. R. Chittick, Iowa.

Pres. J. R. Chittick: We will have first the reading of the paper on Egg Albumen in Baking Powder, by H. L. Jackson of Idaho.

Pres. J. R. Chittick: We will now listen to the paper on Heavy Metals in Baking Powder, by Mr. Roe E. Remington, of North Dakota, which will be read by Dr. Ladd, the Commissioner.



MR. J. R. CHITTICK OF IOWA,
President.

Dr. Ladd: I might say that this is simply preliminary work on this subject by Mr. Remington, and he has submitted it to several others to test it out and several people have been in the laboratory working with him on this method and have discussed the paper with him and he proposes to submit his final report on the subject as referee at the next meeting of the Association of Official Agricultural Chemists.

THE DETERMINATION OF LEAD IN ALUM-PHOSPHATE BAKING POWDERS.

ROE E. REMINGTON,

Chemist, North Dakota Food Commission.

The determination of lead is of particular moment in baking

powders and in this class of substances, particularly those of the alum-phosphate type, it presents difficulties to be met in no other class of food materials. The presence of a large quantity of mineral salts interferes with the destruction of organic matter by usual means. The customary method of removing organic matter by carbonizing with sulfuric acid or charring at low heat is open to serious objection, owing to the difficulty, and probable impossibility of removing minute traces of lead from carbons.¹ Further incineration to complete ashing no doubt entails a loss of lead through volatilization, owing to the minute state of division.

The usual process of wet combustion by nitric and sulfuric acids requires large quantities of the reagents, which must be afterwards removed, and which introduce the added danger of lead contamination. Simple hydrolysis with hydrochloric acid, on the other hand, probably does not break up organic (protein) lead compounds, such compounds, according to Autenrieth,² being broken up only by the strongest acids, and cannot be detected by the ordinary tests. Hydrolysis with hydrochloric acid is open to the further objection that large quantities of calcium phosphate are precipitated, the bulky crystalline precipitate interfering materially with subsequent treatment.

In a paper by Seeker and Clayton presented before the A. O. A. C., this problem is solved by the use of ammonium citrate, thus taking advantage of the well-known solubility of phosphates in this reagent.

As a precipitant for lead in the presence of the large quantities of other salts present, hydrogen sulfide seems to have been generally adopted, and gives good satisfaction provided the solution be not too acid. According to some recent work by Von Hevesy and Paneth³ water saturated with hydrogen sulfide will hold in solution at room temperature 0.15 mg. of lead sulfide per liter. In a total volume of 500-600 c.c. the soluble lead will be less than 0.1 mg.

To dissolve the precipitated lead sulfide from the filter, Seeker and Clayton used hot 10 per cent hydrochloric acid, followed by hot 25 per cent nitric acid. Owing to the well-known tendency of filter paper to occlude lead salts, the writer considers it better to digest the precipitate, filter and all, in nitric-sulfuric acid until oxidation is complete, and then separate lead sulfate from calcium sulfate by an alcoholic solution of ammonium acetate, according to the procedure suggested by Erlenmeyer.⁴

In the final determination chromate precipitation from acetic acid solution as suggested by Seeker and Clayton is very nearly as delicate and much more reliable than the colorimetric estimation.

According to Winkler⁵ as small a quantity as 0.1 mg. of lead may be determined colorimetrically by the Warrington method, i. e., hydrogen sulfide in alkaline solution, with an accuracy of about 10 per cent. According to Von Hevesy and Paneth⁶ the solubility of lead chromate in distilled water lies at 0.012 mg. per liter, which is negligible. The limit of accuracy in weighing may be placed at about 0.1 mg., corresponding to 0.06 mg. of metallic lead.

The size of sample will determine the limit of the method. The original Seeker method uses 20 grams.

The writer has endeavored to so modify the method as to make it applicable to 100 grams of material, and thus increase the delicacy to a point where 5 parts per million of metallic lead can be estimated gravimetrically with an accuracy of about 10 per cent, and colorimetrically with an accuracy of 5 per cent.

Considerable difficulty has been experienced in applying the colorimetric method to this class of material, apparently through lack of uniformity in the tint, perhaps due to the presence of unknown impurities in the baking powder. The writer's modification in detail is as follows:

"One hundred grams of baking powder are weighed into an 800 c.c. Jena beaker, 75 c.c. of hydrochloric acid added in small portions, with stirring, followed by 200 c.c. of distilled water. The mixture is placed on a steam bath and heated until the starch is completely hydrolized and the solution is fairly clear and a bright yellow. Too long heating will result in darkening due to caramelization. A copious crystalline precipitate of calcium phosphate may appear, but will do no harm. The solution is neutralized to the point of precipitation of aluminium with ammonia, cooled, and 400 c.c. of a 20 per cent ammonium citrate solution saturated with hydrogen sulfide are added. This citrate solution is prepared as follows: A solution containing 200 grams of ammonium citrate per liter is prepared in a bottle fitted with a two-hole stopper. Through one hole connection is made with a generator producing hydrogen sulfide, and to the other is attached a siphon for drawing off the solution. The liquid is thus kept saturated with hydrogen sulfide, and at the same time may be drawn off without disturbing the precipitate of lead sulfide which has gathered on the bottom.*

The baking powder solution will be slightly alkaline, so that a partial precipitation of iron sulfide will result, together with that of the lead. The solution is allowed to stand covered, passing in more hydrogen sulfide if the odor of the gas disappears, until the precipitated sulfides settle. The supernatant liquid is siphoned or filtered off, the precipitate collected on a filter and washed with a small amount of hydrogen sulfide water. The filter with the precipitate is then placed in a tall 100 c.c. Jena beaker, 5 c.c. of sulfuric acid and 10 c.c. of nitric acid added, and heated on the hot plate with occasional additions of nitric acid until the solution is colorless and all organic matter is destroyed. The solution will contain a precipitate of calcium sulfate. Continue the heating until the large portion of the sulfuric acid has passed off, but not to dryness. Cool, and add 5 c.c. of water and heat gently to aid solution. Again cool, neutralize with ammonia, and add 30 c.c. of a mixture of equal parts of saturated lead-free ammonium acetate solution and 96 per cent alcohol. Allow to stand over night, filter and wash with a small amount of the ammonium acetate alcohol solution. If the precipitate of calcium and ammonium sulfates is heavy, it may be necessary to use suction. Acidify the filtrate with acetic acid and heat nearly to boiling. Precipitate with potassium dichromate solution, allow to stand over night, filter on a small tared Gooch, wash with a small amount of cold water, dry at 125° and weigh as lead chromate.

It is the belief of the writer that by these modifications the necessary number of operations has been reduced to a minimum, and the accuracy of the method considerably increased, a belief which is substantiated by several months' experience.

Mr. J. R. Chittick: Any discussion on this paper? Any questions you would like to ask Dr. Ladd on the subject of lead in baking powder? If not, we will pass on.

For the benefit of those who came in late I will state that on account of Dr. Ladd having to appear before the other section, we took his paper first and left the address of the President until the next item. We will now have that.

ADDRESS OF PRESIDENT CHITTICK.

I have the honor and pleasure, as your President, to open this, the third annual meeting of the Association of Official Food and Drug Chemists. I regret that our vice-president, Dr. B. B. Ross of Alabama, is unable to be with us. In a letter he has extended his best wishes for a successful meeting.

We owe much for the existence and success of our section to the untiring efforts of our first officers, President Frear and Secretary Bryan. Last year you re-elected Dr. Bryan as your secretary. Owing to his leaving official work he handed me his resignation and, at his suggestion, I asked Mr. F. L. Shannon of Michigan to fill the unexpired term. Mr. Shannon has done considerable corresponding to arrange this program, for which I wish to thank him.

Further, I appreciate what each of you has done in preparing the papers to be presented. I hope this

meeting will have the spirit of informality throughout, and that our discussion will be spontaneous.

The importance of our section cannot be overestimated. As we make progress in the work, new problems are daily arising which must be referred to the scientific man, just as legal questions go to the lawyer. The duties of the scientific man are ever increasing in number and importance. At first thought he makes only the chemical, bacteriological or microscopical examination of the samples of foods and drugs which are submitted to him. This is true, but he soon finds other duties which seem of necessity to fall upon his shoulders. The scientific man should occupy the position directly behind his executive officer. It should be his duty to direct the way whenever called upon. This may come in a conference, a hearing, or a legal procedure.

As the enforcement of the laws depends upon educational as well as legal methods, the scientific man should be able to prepare proper literature which will disseminate the truth in language understood by all. The preparation of educational exhibits for pure food shows, fairs, health trains, etc., is no small matter and after they are prepared it is necessary to send a scientific man along to explain in detail the many problems of interest.

The high-school children, domestic science classes, and women's clubs are eager for this information. Addresses before clubs, colleges, schools, etc., illustrated with the stereopticon are an ideal way of impressing upon these minds the needs of the work.

So much is being published today in our field of work that never reaches the masses of the people and consequently we do not get results where most needed. We should supplement law enforcement with proper publicity of an educational nature. In doing so let us avoid the personal equation. Every article should be issued as coming from the department and not from any one man in the department. The public soon tires of such personal publicity and rightfully questions the true purpose of the articles they read and loses confidence in the official. And an official must have the respect and full confidence of the public before he can exert any influence for good and we can easily lose this confidence if we are not sane and practical in our teachings.

We are not digressing from the duties outlined for us when we investigate and study existing conditions in the manufacture and distribution of our food products with a view towards conservation. A statement made by a food manufacturer illustrates the need for conservation. He said the canning industry has not improved the process of canning fruits and vegetables to any perceptible extent in the last forty years. This statement may not be literally true but I do know that there are many thousands of cases of spoiled canned foods thrown away each year—a needless waste. The stringent enforcement of sanitary laws with constant inspection of the raw materials will do much to solve the difficulty. Here is an opportunity for each of us to be a factor in conserving the food supply of our respective states.

I am a firm believer in the fact that the scientific man can oftentimes accomplish more when turned loose in a factory than he can by making an examination of the product in his laboratory. A few suggestions made here and there, given in the right spirit, may save an entire pack, meaning greater profits to the manufacturer, the gaining of a friend to the

cause, and—more important than all—the knowledge that the product is made from sound, wholesome material under sanitary conditions by people free from disease.

Now I want to elaborate on that just a little. What I want to emphasize is the need the scientific men have of entering the different factories in our various states. In the state of Iowa it is claimed that one-fourth of the world's supply of corn is canned. There are numerous factories scattered all over the state. We haven't the money available to have a man in each factory to look after the material and conditions, but nevertheless I believe it is a great thing to have an official inspection of those factories, with the idea uppermost in our mind of helping the manufacturer—as that is the way to put pure food on the market. I remember last summer I visited a catsup and tomato canning place. They had a sorting-out process where they got out perhaps the worst tomatoes but they ran by the man rather rapidly and a great many got past. It was a very simple matter for any one with any scientific training at all to be able to see where that catsup would have a good many molds and spores and bacteria and just a little statement telling him that and showing him what it meant and all that was necessary to remedy it, did the work. And he appreciated it. He felt he had met a friend instead of a foe.

The inspection of meat in our government inspected packing houses is very successful for the reason that competent men are on the field of activity and familiar with every condition.

Sociological conditions exist or change through the effort of man. No better evidence in support of this statement can be cited than the conditions of life which existed and the changes which are daily occurring in the material things which are for our well being. Conventionality retards progress as well as ignorance does. Before any improvement has ever been realized it has been preceded by enlightenment through education. This era which started with the food and drug control work will be recorded in history as one of the great reformations. It has opened the eyes of the world that it might see and believe the conditions which commercial competition and the greed of man have wrought. The elimination of fraud from our food is being followed by a like wave of reform to protect the consumers in every commodity necessary for life. The work is just started. We have yet to attack even greater evils which are destroying the physical, mental and spiritual life of man.

We are in a wonderful work which has possibilities without limit for the betterment of humanity, and we are in a most fortunate position to carry on this great work. (Applause.)

Mr. J. R. Chittick: Now we had such a good program for our section that the convention came in and took four of our papers away from us and I don't know whether there will be any of today's papers left or not.

But we have with us today a chemist who has been an official chemist in the government work and I think we will always remember him as such and we are pleased to have him come before us today although he is now in a commercial position. His paper is on "The Influence of the Commercial Chemist in the Control of Commodities," Mr. Mory of Chicago.

Mr. A. V. H. Mory: Gentlemen, this paper is not new. I have thrashed it out on a great many of my friends. When I wrote this paper I did so to en-

deavor to clarify my own ideas with respect to the matters treated therein. I did not name it until I had written it, and I have named it now "The Chemist, a Growing Factor in Merchandizing," which I believe comes a little closer to describing what I want to say.

I might say briefly that what I wanted to bring out is that distinct from production, there is in the field of distribution a growing work for the chemist and I want to bring out a few of the relations that might be called reasons for this fact.

¹Blythe—Poisons, Their Effects and Detection, ed. 1906, p. 635.
²Autenrieth, Detection of Poisons, tr. Warren, ed. 1905, p. 117-118.

³Z. anorg. Chem. 82, p. 323-8.

⁴Biochem. Z. 56, p. 330-40.

⁵Z. angew. Chem. 26, p. 38-44.

⁶loc. cit.

Note: Practically all the ammonium citrate on the market contains lead. By preparing the solution in this way the loss due to solubility of lead sulfide is reduced to a minimum, the reagent being already saturated with this salt.

THE CHEMIST, A GROWING FACTOR IN MERCHANDIZING.

A. V. H. MORY.

That the chemist has for some time been a very important factor in manufacture is everywhere well recognized. On the other hand, his employment by the consumer has been practically limited to the extent that the manufacturer is also a consumer. Until recently the small consumer has enjoyed the benefits of chemical control only to the extent that control of raw materials and improvement of processes of manufacture work indirectly to his advantage.

Under the old trade maxim, "Let the buyer beware," the need for more than off-hand inspection of purchases on the part of the small consumer has been great, but his ability to afford such inspection plainly negligible.

At an early day little protection was needed by the consumer since many of the necessities of life, and such luxuries as were afforded, were produced at home. Later, when the factory began to replace the kitchen, the churn, the spinning wheel and the loom, and powdering, mixing, coating, coloring, flavoring and preserving frequently made the original raw material well nigh unrecognizable, sophistication became increasingly difficult of detection. With the introduction of package goods and the necessary label came also the opportunity and temptation to misrepresent.

It is well to remember in this connection, however, that the beginnings of adulteration and misbranding were certainly the work of only a relatively small class in the community—the unfair minority—though it must be admitted that with unfair competition thus set up, the relatively honest majority too often felt the necessity of meeting such competition in kind.

The introduction of these abuses was naturally a gradual process, as was also the development of resentment on the part of the consumer, but the latter finally began to feel that under our form of government, in which the majority is at least entitled to rule, the interest of the consumer, who is in the vast majority, is certainly the matter of first consideration. This awakening public sentiment has caused the enactment of commodity laws, which, though designed originally to protect the consumer, are bound to result through the elimination of unfair competition in great good to the majority of producers and distributors as well.

This "business honesty" legislation began with laws governing the character and description of commodities related in part to the matter of public health, viz., foods and drugs, but has already been supplemented by laws regulating the character and description of other commodities and is rapidly spreading in its application to the whole business fabric. The public sentiment that is bringing this about is no doubt being influenced by the fact that the enforcement of these food and drug laws has uncovered more of simple fraud than of injury to health. As greatly to be desired, therefore, as is the protection of the health of the people, still, where health is not involved, there is no logic in requiring a higher standard of honesty for one class of commodities than for another. As there can be no doubt of the permanency of these initial laws, we may expect the future to give us laws designed to eliminate fraud not only from foods and drugs,

but from commodities in general. A beginning made in the case of insecticides, paints, and honest weights and measures, is destined soon to be extended to include textiles, metals and other commodities whose off-hand valuation is difficult or impossible.

Again, since the individual consumer has little or no opportunity to protect himself when off-hand inspection is inadequate, we are coming to recognize that, as representing the vast majority of the people, he is entitled to the protection that comes from placing the responsibility as to quality and description upon the producer and distributor. And so it is that the old rule of trade, "Let the buyer beware," is giving place to the more logical and fair requirement, "Let the seller beware," a principle which finds its natural expression in the commodity law.

Though this new rule of trade is coming in through the demand of the buyer, still the far-sighted seller is beginning to look upon it as more of an asset than a liability. He knows that permanent success must rest on the continued satisfaction of the buyer and that this satisfaction may be depended on to continue only so long as he, the seller, is willing to take upon himself the obligation of seeing that the quality, as well as the price, is right. Furthermore, he knows that the degree of the buyer's satisfaction depends not entirely on value, since the buyer may not be a good judge of value, but depends rather on the ratio between realization and expectation—a fact suggesting the disadvantage of extravagant advertising. Accordingly, the merchant is coming to believe that the only permanent basis of successful merchandizing, at least in this day and age, lies in the sale of none but dependable goods, and that through a medium of advertising that is both truthful and accurate.

The notion that the merchant's obligation is fulfilled when he sells his wares simply for what they are represented to him to be is rapidly passing, along with the fallacy that the press has no responsibility for the character of its advertising matter. Likewise the merchant who hides behind the excuse that he has no way of knowing whether or not his goods are what they are represented to him to be, is going to have to give way to the merchant who acquires means of finding out.

It is here that the chemist makes his entrance. His is the work of appraising value when off-hand inspection proves inadequate—the work of finding the small percentage of cotton in the "all wool" suit, an adulterant which the touch of the expert might fail to reveal; of finding the same cheaper fiber that may lessen the value of the linen table cloth and the silk dress; of determining whether or not the filled gold watch is indeed worthy of the name; whether the linseed oil is true to name and the turpentine not obtained in part from mother earth or from another cheap source. Indeed the merchandise chemist's problems may well be many, if he turn his attention to all that might be improved through his criticism. If his work lie in the field of foods, drugs, insecticides, or in any other covered by inspection laws, he has the added responsibility of protecting his employer from the bad advertising that even being the distributor of illegal goods is likely to entail. The guaranty of the seller may be depended on to forestall prosecution, but ignorance as an explanation of the possession of contraband goods cannot be expected to satisfy the customer. There is, therefore, a growing suspicion that the safe course lies in criticizing one's own product more severely than any public official would have the heart to.

Possibly some may be thinking of our merchandise chemist as an analyst, pure and simple, but he must be more than this. To be sure, analysis must precede criticism, but criticism, which is the interpretation of analysis—the rendering of an opinion as to value—is the service really required.

As value is a purely relative matter, no opinion worth while is possible without a standard for comparison. The selection of suitable standards is a work of first importance, therefore, and one of no little difficulty. Much along this line has been and is being done by various organizations, but a much greater part remains to be done. With the advent of commodity laws has naturally come greater attention to standards as a necessary basis of criticism of both product and label, and much of value is to be expected from this source.

We turn aside to observe, in this connection, that these commodity laws can scarcely serve the consuming public better than through the establishment of standards specifying properties and constituents, and even origin and method of production when necessary, since the general adoption of such standards will tend in the long run not only to improve

quality but to reduce the cost to the consumer. We hear much of the advantage by way of uniformity of quality, that is associated with proprietorship and the "coined name," but this advantage too often costs the public much more than it is worth. The justice of rewarding the author of a new and useful idea, as voiced in our patent laws, is easily granted, but the collection of tribute through the employment of secrecy and much advertising is quite another matter. When superiority is measured largely or entirely in terms of printer's ink, the consumer pays the printer and gets little or nothing but misinformation for his added expenditure. The remedy for such abuses must come, in part at least, through the adoption of commodity standards.

In this work of the preparation of standards, in fact, wherever opportunity offers, the merchandise chemist may logically join hands with those engaged in the enforcement of commodity laws, since such laws are now generally acknowledged to give expression to the principles underlying permanent success in his own field. He must, furthermore, keep in close touch with all the laws that affect his goods, for he must conform to the letter as well as to the spirit of the law.

It is plainly this necessity of meeting the requirements of commodity laws, present and to come, that is largely responsible for the growing demand for the chemist in the field of merchandizing. It is important to note in this connection that though our present commodity laws have come through the demand of the consumer, our future laws of this sort are likely to be welcomed (as is the continuance of our present laws desired) by the business world, which is coming to look upon success as something to be attained through service rather than through exploitation, and is tending to be guided by an enlightened self-interest that welcomes the law that commands strict obedience to basic principles of honesty, since thereby comes the elimination of unfair competition.

That we are destined to have general commodity laws in the not distant future appears certain. Even without the necessity of law obedience a broad merchandizing policy is already finding much need for the chemist. With the coming of general commodity laws there will be added many new fields in which the importance of the chemist's work will amount to a necessity.

The Chairman: It is necessary, in rearranging our program, to pass to our Wednesday program for a few of the papers. You know the executive committee combined the three afternoons into two. The next paper on our program, therefore, will be one from Mr. H. M. Loomis of the District of Columbia, on the subject of "Food Products from Soy Beans."

FOOD PRODUCTS FROM THE SOY BEAN.

By H. M. LOOMIS.

Although a great deal has been published in regard to the uses of the soy bean as a forage and rotation crop for the enrichment of soils, not much has appeared in American literature regarding the various food products derived from this bean, which, next to rice, form the most important articles of diet of the inhabitants of eastern Asia. It is one of the principal agricultural crops of Manchuria and is rapidly being introduced into this country and Europe. The importance of the soy bean to the Japanese and Chinese people and their need of land for its cultivation are undoubtedly two of the reasons for the recent struggle for supremacy in Manchuria. Japan has been dependent in large degree upon that region for its supply of the bean, and soy bean press-cake, which is produced in large quantities as a by-product in the manufacture of soy bean oil, has served as one of the principal fertilizers for the Japanese.

Experimental shipments of soy beans were made to England and Germany about eight years ago and, on account of shortage in cottonseed and other sources of vegetable oil, met with immediate favor. Soy bean oil is now extensively used in Europe for the manufacture of soap, and the press-cake forms a concentrated stock food which appears to be rapidly growing in favor.

A brief description and analyses of soy bean food products are given by C. F. Langworthy in *Farmers' Bulletin* No. 58, which is out of print. It appeared to me that information regarding the interesting products, which I collected while stationed on the Pacific coast, might be of interest.

Probably the most interesting and important of these food products is soy sauce, or shoyu, as the Japanese call it. It is the only one which is used to any extent among Occidental nations, with whom it forms the principal ingredient of Worcestershire and similar table sauces. It also is used to some extent as an ingredient of bouillon cubes. Koenig estimates that the consumption of this product in Japan amounts to two or three fluid ounces per day for each person, which would make a total annual consumption for that country alone of three to four hundred million gallons. No figures are available as to the amount of this sauce which is used in China, but all except the poorest class eat it habitually on rice and fish, which form their principal articles of diet.

The manufacture of soy sauce is dependent upon the action of molds and both skill and experience are involved in its preparation. The Japanese product is prepared on more scientific principles and it is considered much superior to Chinese soy. Each manufacturer of Japanese soy has special



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brands or trade marks under which his products are sold. Japanese soy is usually imported into this country in wooden tubs holding about three gallons each and sells at wholesale price of from 75 cents to \$1.50 per tub. A brief description of the process of manufacture is as follows:

A mixture of soy beans and wheat is boiled and to this is added another portion of wheat, which has been roasted and ground. This mixture is then inoculated with a peculiar mold culture known as Koji, such as is used in the preparation of rice beer or Sake. The mass is thoroughly mixed and then allowed to ripen in a warm room for several days, during which time a growth of mold covers and spreads through the mass. This is then mixed with salt and water in large vats where a slow fermentation is allowed to go on for a period varying from several months to five years—the best quality taking the longest time. In the last stages of the process the mass becomes more and more liquid and is frequently stirred. Finally the product is pressed and the soy sauce separated from the fibrous material as a clear brown liquid to which more salt is often added. As shown by the analyses given below, soy resembles in composition a liquid beef extract, consisting as it does largely of salt, water, and decomposed products of proteid bodies. It can readily be seen, however, that this sauce does to a certain

extent serve to give the stimulating effect, if not to take the place of meat among the Chinese and Japanese.

Soy bean curd, or, in Japanese, Tofu, is as its name implies prepared by coagulating or precipitating the legumin, or vegetable proteid, of the soy bean by mineral salts. The process of manufacture may be briefly described as follows:

Yellow soy beans are soaked in cold water to soften and are then ground in an old fashioned stone mill. The ground mass is diluted with hot water and strained. The liquid is then heated to boiling and boiled for some time and to the hot liquid is added a brine containing principally chloride and sulphate of magnesium and calcium obtained in the production of salt from sea water. The proteid is coagulated, enclosing the oil. The coagulated liquor is poured into cloths spread over wooden frames and the clear liquor pressed out. After about half an hour the curd is ready to be cut into pieces which are usually about three inch cubes. It is kept in cold water until used and spoils after two or three days.

Although this product has a somewhat beany flavor, it closely resembles milk curd, and by methods of preparation suited to American tastes it would undoubtedly form a starch and sugar-free food of much value. In order to make it keep better, a great deal of this curd is fried or frozen and dried. Much of it is also eaten raw by the Japanese.

The frozen bean curd, or "Koritofu," is an interesting example of the application of the freezing process for the drying or concentration of a food such as is now being applied experimentally in this country for the concentrating of fruit juices. As shown by the analysis below, fresh bean curd contains a very large amount of water and is therefore a very unstable product. By freezing, the vegetable proteid shrinks and forms a porous cake permeated with ice crystals and this can readily be thawed and dried. It forms a product much resembling gluten bread in appearance.

The liquor or bean milk is the milky fluid produced in the manufacture of bean curd after straining and before coagulating. Chinese bean curd, or Toufu-pi, is prepared by drying the scum produced on boiling the bean milk. It is imported in the form of vitreous, brittle, yellowish sticks, in appearance like dried casein.

For the preparation of soy bean oil, the beans are simply ground, steamed, and pressed. The oil varies in color according to the variety of the bean, being quite dark when prepared from the green or black bean. Although this oil has found little use up to the present time in this country or Europe as an edible oil, it undoubtedly could be refined for that purpose by methods similar to those employed in the refining of cottonseed, peanut, or sesame oils. The raw oil as imported is often dark colored or cloudy and has a decidedly beany flavor.

A form of bean meal, known as "Kinako," is prepared by roasting and grinding soy beans. It has a very agreeable flavor and is much used in the preparation of confections, particularly as a sort of coating powder. It is rather coarsely ground and appears to be well suited for use as a breakfast food.

"Miso" is a fermented bean product prepared by a process similar to the first stages in the manufacture of soy sauce in that the beans are cooked, crushed, mixed with salt and with rice or barley "Koji," the same ferment as is used in the making of soy. There are two principal kinds imported into this country, the white and red Miso. They differ principally in the rapidity of fermentation and in the amount of salt used. A certain amount of wheat is also used in the preparation of red Miso. The product is a thick paste having a sour taste. The process of making the Miso requires from a few days to ten or twelve months; it is cheaper than soy and serves more or less as a substitute for it for the poorest classes in Japan and China. Over 50 per cent of its solid constituents are soluble in water. In consequence of the action of the fermentation produced by the fungus growth it is not only rich in protein and carbohydrates but in their decomposition products making it both a stimulating and a digestible form of vegetable food. Miso is not usually eaten in the raw state but is used in the preparation of soups and as a flavor for other foods.

Winton and others have suggested the use of soy bean products as foods for diabetics and it appears that there are many of the foods mentioned above which would serve a

cause a food doesn't have starch doesn't mean that it is useful for diabetic foods. As a matter of fact, diabetics must have carbohydrates—the question is how much they can use with safety, and every medical man must solve that question for himself. Simply because a food does not contain carbohydrates does not mean that that food is suited for a diabetic patient. What effect these proteasans that may be present in soy beans may have no one knows, and that is another question to be carefully considered.

You hear the statement made by medical men occasionally that if you want to treat your diabetic patient well, give him a crust of bread; that crust of bread contains carbohydrate material. And such a statement shows he does not know the composition of bread or he would not make such a statement to the nurse.

I would like to speak a word about Mr. Mory's paper, if I may. Mr. Mory of the Sears, Roebuck Company of Chicago, stands out as one of the men connected with the commercial work as doing more than any one of us outside, and I think he is to be commended. I have watched his work with considerable interest and I will see the progress that has been made under his direction and supervision. I have conferred with him in a number of cases and the question comes up, "Will he stand without hitching?" That question comes up in all of these things when the chemist connected with the commercial world must make a decision. The question comes up, "Can we go that far? Will the people stand for us? Will we be supported by our fellow chemists?" A great many questions like that come up and we know we tread frequently on dangerous ground.

I remember when I first began to apply my vocation one of the men connected with the firm I was with said, "Oh, chemists don't amount to much; the woods are full of them—we don't have to have chemists," and they would tell men, "If we would follow your suggestions we would be ruined. We couldn't do business." I would say, "But you *will* follow my suggestions or the suggestions of some other chemist after me before you get through, because the various states have passed laws which require certain commodities to comply with certain standards," and, true enough, it was not very long before they were picked up on some of their low grade goods and they found they did need a chemist, and they have a well equipped laboratory now.

Of course Mr. Mory's work along the patent medicine line I have followed, being interested in that myself, and I have seen the results he has gotten from his efforts in that line of work, and the catalog of his firm five years ago as compared with the catalog of today—well, no one would know it. You would think it was an entirely different piece of work. Mr. Mory's work stands out very conspicuously, and I think he has certainly accomplished a great deal.

Dr. J. P. Street of Connecticut: May I say a word? I don't want people to think from what Dr. Kebler said that I am so horribly ignorant as that. Food for diabetics contains 80 per cent starch, and there is nobody knows any better than I do that the diabetic will have all the carbohydrates he can swallow, but when the physician is trying to establish the tolerances he wants to get his figures as exact as he can. That is all I meant about my remark about the starch.

President J. R. Chittick: Is there any other discussion on this question? If not, the next paper is one

on "State Drug Inspection" by Mr. A. R. Todd of Michigan. Mr. Todd's paper will be read by Secretary Shannon, I believe.

STATE DRUG INSPECTION.

By A. R. TODD, PH., G., PH. C. B. S.

Drug Analyst, Michigan State Dairy and Food Department.

Since the enactment of the National Food and Drugs Act of 1906 several states have passed drug laws; some copied after the federal law, others having little in common with it. In 1909 Michigan passed a law copied materially from the national law which, while far from being a model, still stands without amendment.

Although allowed but two regular drug inspectors, Michigan has what I consider a very thorough drug inspection. Every drug store is visited at least twice a year and those in which we found adulterated samples are visited oftener. It is a question as to which is the best method of inspection.



MR. A. R. TODD,

Drug Analyst, Michigan State Dairy and Food Department.

tion. I know of one state where the inspectors are given a list with orders to purchase each and every article at every drug store. How feasible or desirable this method is, I need not comment on. Some states have a list of substances, which list is increased from time to time. I do not favor that for it is comparatively simple for the dishonest druggist to keep these preparations O. K. and adulterate others.

In Michigan the question of samples is left to the judgment of the inspector. We have no list of substances to be taken up, but pay particular attention to the important products. By important I mean those preparations which are commonly called for by the physician and the laity.

The following is a list of preparations taken up during the fiscal year ending June 30, 1913.

Acetylsalicylic Acid, Alcohol, Asafoetida Tablets, Aspirin Tablets, Atropine Tablets, Beef, Iron and Wine, Bismuth

Subnitrate, Camphorated Oil, Carbolic Acid, Digestive Tablets, Elixir Iron, Quinine and Strychnine, Essence Peppermint, Essence Pepsin, Flowers of Sulphur, Fluid Extract Nux Vomica, Formaldehyde, Fowlers Solution, Laudanum, Lead Water, Lime Water, Nitro-hydrochloric Acid, Oil Anise, Paregoric, Potassium Iodide, Proprietary Preparations, Seidlitz Powders, Soap Liniment, Spirits Camphor, Spirits Nitre, Syrup Heroin Sedative, Syrup Iodide of Iron, Tincture Ginger, Tincture Belladonna, Tincture Iodine, Tincture Nux Vomica, Tincture Opium, T. T. Calomel, T. T. Codeine, T. T. Morphine, T. T. Nitro-glycerine, T. T. Strychnine, Turpentine and Zinc Oxide Ointment.

Permit me to call your attention especially to some of the tablet preparations. When we first began picking up samples of 5-grain Aspirin Tablets, we found the majority of them to contain from 2 to 4.2 grains. We later found Nitroglycerine Tablets without any nitro-glycerine, and a peculiarity of the narcotics—morphine, codeine, heroin, etc.,—was that they contained from one and one-half to double the amount said to be present. As a result of the investigation along this line, we have driven from the state or put out of business several of the worst offenders.

To have a good state drug inspection, we must have capable drug inspectors. By capable drug inspectors, I mean registered pharmacists who are preferably college graduates; men with the ability to instruct others and who at the same time have the fighting qualities which make good inspectors. I prefer young men with about three years practical drug store experience, because the sympathies of older men are usually with the profession rather than the department.

How shall the drug inspector proceed in the performance of his duties? Shall he travel over the state as a sleuth, drop into a store, purchase a sample, disclose his identity, or shall he fulfill the requirements of his title? In Michigan we have him call upon the druggist, make known his identity and literally inspect that store from top to bottom. He goes through the patents, the fluid extracts, the narcotics, the druggist's own makes, etc., purchasing all suspicious products, and making note of the kinds and quantities of narcotics, and also the quantity of whiskey. The druggist's scales, weights and graduates are not exempt. However, as this really comes under another head, I will not dwell upon it, except to say that the number of weights, scales and graduates condemned is almost incredible. However, in states where there is no weights and measures law, much greater variations should be allowed in those products manufactured by the druggist himself.

The sanitary end is not neglected, special attention being paid to the condition of the glassware, bottles, graduates and the soda fountain, and where insanitary conditions are found, an insanitary notice is served and a certain time given in which to clean up.

A few crude, simple tests or indications whereby the experienced drug inspector attempts to separate the legal from the illegal and which may be of value where a department has recently been established, may not be out of place here.

Samples are to be taken up in case of Tincture of Iodine if there is undissolved Potassium Iodide in the bottom of the bottle or if it will not mix with five parts of water without the separation of free iodine. Also if it is off color or wood alcohol is suspected.

In case of Spirits of Camphor, if the odor is weak or wood alcohol is suspected or if the presence of added water is shown by the Castor Oil test. Castor Oil and Spirits of Camphor should remain clear when thoroughly mixed.

In case of Sweet Spirits of Nitre, if the product is stored in a flint glass bottle or exposed to light, if the cork has become softened or if the product gives an acid reaction with Sodium Bicarbonate.

In case of Lime Water the taste will indicate whether it is weak or not.

In case of Seidlitz Powders, if the weight falls below standard.

As I said before, the above field tests are crude, yet we must have some means of distinguishing the good from the bad.

There is some question in my mind as to the best policy to pursue—education, publicity or prosecution. When the drug department was first established four years ago, little was known of drug laws, and as a result the earlier work of the department was largely a work of education and instruction. Prosecutions were seldom brought when the laws were violated, and it was deemed best to educate both the dealer and consumer along the line of pure drugs and the observance of pure drug laws. While this undoubtedly was

the proper course to pursue at that time, I believe that there is a time when education should be supplemented by prosecution and while we are still attempting to educate the druggist, we also have started to prosecute him. The following data shows that much more effective results were obtained from prosecution than education.

Our reports show that for the fiscal year ending July 1, 1911, a total of 631 samples were analyzed of which number 357 or 56.5 per cent were adulterated. In 1912, 282 were analyzed, 160 or 56.7 per cent of which were adulterated. In 1913, 504 were analyzed, 252 or 50 per cent being adulterated. In 1914, 570 were analyzed and 200 or 35 per cent were adulterated, showing during the year of prosecution a drop of 30 per cent which is an argument in favor of this attitude. In 1912, fifty out of sixty samples of Sweet Spirits of Nitre were found to be adulterated. In 1913, twelve out of twenty-three were adulterated, while in 1914 only a few samples were found off, all due to the work of the inspectors in instructing the druggist to store the product in not larger than one-pound brown bottles in a dark, cool place. Where a druggist has not followed instructions, samples are promptly taken and if upon analysis they do not comply with the law, proceedings are instituted.

In regard to publicity, I may say that even greater results have been obtained by this method than any other, especially in putting out of business patent medicine fakers. The people of the United States are certainly indebted to the American Medical Association for the admirable way in which they exposed the gigantic frauds. Any person who has seen a copy of "Nostrums and Quackery," published by that association, will undoubtedly agree with me. We also have done more or less work along this line. Our inspectors obtained samples of a great number of questionable products. These were analyzed in the department laboratory. We also investigated the firms marketing these products and their methods of doing business. The results of our investigation, written up in a humorous and witty manner, were published in a special weekly bulletin which was reprinted in practically every newspaper in the state. Time and time again we were threatened with libel suits but as no faker cares to have his business aired before the public, the threats were never carried out and the Michigan Dairy and Food Department is still doing effective work in combating the patent medicine evil.

President J. R. Chittick: This paper is now open for discussion.

Mr. H. H. Hanson of Maine: It seems to me that there is one point which is liable to be missed if the drug inspector always goes into the store and makes himself known and looks over the stock of goods—he doesn't know how that man is conducting his business with the ordinary customer.

I do think that a good deal can be accomplished at times by an inspector going into a store unknown to the proprietor and asking for a sample of some one particular thing which is liable to be adulterated or perhaps in picking up things like spirits of peppermint, which is very easily made up but which may be very carelessly made up.

And one of the points I would like to ask about and get the opinion of some of the other people here on is as to the value of field tests. I myself very much doubt the value of field tests unless in the hands of a very experienced druggist, and even then I think some of the important points are likely to be missed.

Mr. F. L. Shannon of Michigan: In reply to Mr. Hanson's first proposition, that is, the manner of buying the product, I think perhaps the differences in the laws might make a difference in the manner of procedure. I anticipate, however, that most state laws are similar in this respect: that is, the inspector has the right to take any sample he may wish in the drugstore. It seems to me if an inspector goes in, therefore, he will get the same product he would if he went in there as an actual customer. Generally speaking, it would hardly be possible for the druggist to make any change in the product in the short length of time at his disposal.

Mr. H. H. Hanson: There are several grades of goods, you know.

Mr. F. L. Shannon: We have had a man go so far as to reach out and knock the bottle out of the inspector's hand, to pour out the product after he had filled the bottle, which was before he knew our man was an inspector. He leaned over and knocked the bottle out of his hand, spilling it all out.

Mr. H. H. Hanson of Maine: It is true that the inspector would get the same product as the ordinary consumer, perhaps, but it is also true that there are various strengths and qualities of an article which may be very easily substituted one for the other—as varying strengths of ammonia water.

Dr. William Frear: I may say that, simply as a matter of psychological effect, it is impossible to carry on at the same time, in any extended manner, the detective method and an educational method of work. The educational method requires, for its success, the attitude of helpfulness and confidence on the part of the inspector if his work is to be well received, and I think there will come a time when those established in the trade will be reached, so far as they can be reached at all, by educational methods. There will always be those who will be dishonest and those who are hard-headed and feel their rights are being invaded by any such legislation as the present food and drug laws, but we like to stick to the open method and do all that is possible with the inspection that preserves an open attitude.

In such cases as come to the attention of the inspector where deliberate adulteration or misbranding is being practiced and it cannot be reached in any other way, I suppose the detective method will have to be used in order to protect the consumer. Because if you don't reach those people who take unfair advantage of your open ways, the honest man who has to compete with those dishonest people is going to be troubled in his business, and this fact justifies the employment of any method that is satisfactory for the purpose. I am of the opinion, therefore, that in some rare cases the collection of samples without the disclosure of the identity of the inspectors should be made.

Mr. H. E. Wiedemann of Missouri: This proposition of how you take your samples depends upon the kind of law you have. In our state it is required that each inspector shall purchase three samples of an article to be examined. One sample is left with the man he buys it from; one is taken to the chemist at the laboratory for analysis, and one is kept under seal for referee work. Now if an inspector goes into a drugstore and orders three bottles of peppermint, the druggist's suspicion is aroused immediately. He probably gets the samples all right, but he has to seal them in the man's presence. How can you get any detective work in there? Before he buys another sample it is evident, therefore, that he is an inspector. I don't approve of this detective work—we couldn't use it anyhow in our state.

I was interested in that part of the paper where the author said that every drugstore in the state was inspected twice a year and sometimes oftener. In Missouri you are lucky if you visit them twice during a commissioner's term of office, because we have a hundred and fourteen counties and only seven inspectors, and there are several quite large sized cities, St. Louis, Kansas City, St. Joe, and Joplin, so that it is absolutely impossible for us to get around the whole state like

that, and it is a source of gratification to know that there is one state in the union at least where they have enough inspectors to do that much work, or where they have a small enough number of towns so that what inspectors they have can do it. I agree that they ought to be inspected once a year anyway, but that becomes an impossibility where the legislature does not give us enough men to do the work or provide the money to pay for it.

There have been instances when an inspector has gone into a town where they had only two drugstores and one druggist found out the inspector was up at the other store, and by the time he got down to his store he had fixed up some camphor all ready for the inspector—he knew he was getting camphor—and when we came to examine it we found that it contained three times as much camphor as it should have contained. That might prove a very serious case, because if such camphor were actually used it might prove fatal. But it was very apparent how it happened in this case, of course.

There was only one other case as bad as that, however. We got some limewater that had no lime in it at all. The way that sort of thing happens, of course, is that when these small stores start in business they make up five or six gallons of limewater and that will last the man until he closes up his store. We have found just such cases. But there are instances, probably, where some little detective work is necessary. If we hear of some people that are infringing the law in some particular town, selling something right along that is absolutely below standard, our man purchases some of that material. He gets the three samples before the man knows who he is, and I agree that we do have to play the part of Sherlock Holmes then, because if the man knows who he is, that he is an inspector, he will certainly not sell him something that he knows is below standard, but after the inspector has obtained the samples he makes known his mission and shows his badge of identification.

As to field tests, I am absolutely opposed to them, because in order to bring a prosecution on adulterated goods, the tests should be made in accordance with the A. O. A. C. methods and the U. S. P. tests where they are adopted and the official methods—and there are not very many of the U. S. P. methods that can be carried out in the field, and certainly if they are carried out there is likely to be some question of their accuracy so that I am opposed to that unless possibly you except the Babcock test on milk—but I don't approve of field tests for drugs.

A druggist said to me in Missouri, before the present administration, "An inspector came into my store and said, 'Let's see some of your tincture of iodine.' I handed him out some and he poured some water in it and he said, 'Why, that's not up to standard,' but just how he arrived at that very fine conclusion I don't know." Neither do I know. But for that very reason I think the samples should be sealed and submitted to the chemist for examination at the official laboratory.

Dr. J. P. Street of Connecticut: May I inquire how you make your drug analyses in tinctures, how you make your purchases of tincture? In our law we have that three sample feature and I have always held that when you use the United States Pharmacopoeia method of analysis you must use the same quantities as are used in the Pharmacopoeia. If you have to have three samples you can see what amount you

have to purchase. In most states 20 fluid ounces of laudanum would clean out the drug stores. You certainly can't do much detective work when you have to go in a place and buy 60 fluid ounces of laudanum.

I think if you went into the state of Connecticut now you wouldn't be able to find any at all because we have it all in our laboratory. We've been working on laudanum recently.

Dr. L. F. Kebler: What you say interests me very much—but the United States government is not rich enough to buy any such quantities as that. The states may do it, but we cannot. We got rid of that three-sample clause. I think the sooner the states do it, too, the better all around. They ought to get that feature out of the law. In a great many cases you can't get three samples anyhow. We realized that fact soon after the federal regulations went into effect originally and the inspectors tried to buy some of the things we wanted, especially those sent into interstate commerce by mail. We would not get more than two samples except by chance, and so the regulation was modified soon afterwards so that one or two or three samples may be purchased by the inspector, as the case may be, or as would seem advisable.

About the United States Pharmacopoeia methods used for the analysis of drugs, I think there is no doubt but that if you took a case into court only one method would stand, and that is the U. S. Pharmacopoeial method. That method may be wrong—there are a number of methods that are wrong in the Pharmacopoeia—but nevertheless I don't think a case would stand in court unless you did use the Pharmacopoeial method—that is, when it is strictly a Pharmacopoeial drug.

I was interested in the paper of Mr. Todd very much and I was wondering how the question of tablets was dealt with in the state of Michigan with the retail druggists, because the retail druggist, you know, does not manufacture tablets, consequently you have to prosecute the manufacturer. You have to carry it back to the manufacturer. And it's the same old thing with potassium iodide. There is no retail druggist that I know of in Michigan that manufactures potassium iodide, and I am interested in knowing how you handle that problem.

We have taken up this question of examining the various qualities of drugs placed upon the market in the District of Columbia by retail druggists. Of course, I know you have a little bit different problem from what we have in the District of Columbia. But the district is not very large and the telephone is a very useful instrument and our inspectors have found that even though they go in unknown to the druggist it is not very long before someone "falls" and in a little while the inspector is compelled to go back home because the druggist tells him, "I haven't that today," and the only thing for the inspector to do is to go back home. A few days afterwards he can find it but that day and several days subsequently he is done for.

But we have realized that situation and what has been done is to send out a number of inspectors at once after the information and after the samples and in that way we got them.

We do all of our work just the same as an ordinary purchaser or customer would. We go right in and buy what we want and handle the situation that way—call it detective work or what not.

I am very much interested in the lower rate of adulteration that has been brought about in Michigan.

We have done very little in Washington, feeling that the drug trade might feel they were being imposed upon because of the federal law being more stringent than some of the other laws in the states, and so we gave them a great deal of latitude and even Dr. Wiley did that. We didn't do anything until they got well into line. We ran on without doing very much, except a little with the drug manufacturers. And then we began to pick them up. We warned them and talked to them but even with all that warning they simply would sell drugs that were below standard, either deliberately or through ignorance or what not. I remember one druggist, who was also a medical man, came in with a liniment which contained 2 per cent of camphor. He said, "What does that amount to?"

But as a matter of fact the whole situation resolves itself into this—that the druggist is either careless, indifferent or something else which is worse. He is incompetent in some places and it has been decided in Washington that we would keep at the druggists until the situation is cleared up. We made up our minds that we would give them plenty of time and we would be very lenient, though.

I'll tell you the situation about tincture of iodine, and may be you will be inclined to criticize us. I would say that with all the samples of tincture of iodine that we took up, not a single man was cited whose iodine came within 20 per cent of the U. S. Pharmacopoeial standard, which we thought was very liberal treatment and after these druggists came in to the Bureau of Chemistry and gave some reasonable excuse for that even those cases above 20 per cent were dropped then. We dropped them all unless they were more than 50 per cent off or something like that. But then subsequently other samples were purchased from those same people and if they are found off again very bad they would probably be prosecuted—not always then, though.

Also about spirits of nitrous ether, the idea seems to prevail that it deteriorates very rapidly. As a matter of fact, it does not when properly kept. If it is kept under proper conditions it will last a long time. We found some that had been on the shelves two years that were very good. The belief shared by many that it deteriorates very rapidly is not borne out by our information.

Mr. F. L. Shannon of Michigan: I would like to make one remark concerning something Dr. Kebler said about the inspector being unable to get any more samples and going home. In our state inspection work under those conditions, instead of going home, our man would go behind the counter and get what we wanted. We have the right to do that. Of course, when the case comes to trial that druggist is going to say he didn't sell it to the inspector and therefore that he is not liable to prosecution. That is all right, but it is mighty hard to convince the judge that that product was not there for sale to somebody. But I take it that your inspectors can't do that.

Dr. L. F. Kebler: We have never tried that method of procedure.

The Chairman: Dr. Bigelow would like to make an announcement at this time.

Dr. W. D. Bigelow: The American Canning Company wishes to extend an invitation to all delegates in attendance at this convention, to their wives and families and visitors to the convention to a theater party tomorrow night at the Jefferson Theater. The

tickets will be distributed tomorrow morning and afternoon in the smoking room just off the convention room, where the AMERICAN FOOD JOURNAL has its display.

Yesterday a list of those in attendance was made out and left with your secretary but if any ladies have come in since yesterday please hand their names in at once in order that the tickets may be available. This announcement was handed to me by the representative of the American Canning Company which wishes to do something by way of entertaining the delegates and guests.

Mr. J. M. Bartlett of Maine: Dr. Kebler said something about always using the Pharmacopœial method. What do you do in the case of morphine?

Dr. L. F. Kebler: There is no specified method. We have tried various methods but when a case goes into court there is only one method will stand.

Mr. H. C. Lythgoe of Massachusetts: I would like to ask Dr. Kebler what they do under the United States law with those drugs for which no method of assay is given. I believe the national law reads "When examined by the methods given in the U. S. Pharmacopœia"; but if there is no method of assay in the Pharmacopœia, how do you get around that? Take spirits of peppermint or zinc ointment.

Dr. L. F. Kebler of Bureau of Chemistry: We simply devise our own methods. All that is required is accuracy.

Mr. H. C. Lythgoe: Yes, I know, but how do you get around the exact reading of your law which says the sample shall be examined by the test laid down in the U. S. Pharmacopœia. That is what I would like to know. It is a rigid requirement. The law states that in so many words and what I asked was when there was no test laid down in the Pharmacopœia how do you get around that legal difficulty?

Dr. L. F. Kebler: We have never had any trouble.

The Chairman: We have followed a little different line in our inspection work in drugs during the last two years. We have a Commission of Pharmacy in our state. They do all our inspection work. They have picked up a great many preparations from the 5 and 10-cent stores and the department stores. A lot of products like bay rum, toilet waters, hair tonics, shampoos and so on are made up with the use of wood alcohol. The Iowa law covers cosmetics as well as drugs—it is a very far-reaching law. And from the investigations that we have made in Iowa I think it is very essential that these products should be under the control of our laws. It is unfair for the druggist to have to sell his expensive and honestly made preparations in competition with those kinds of preparations.

The question I wanted to ask is this, and I wish Dr. Barnard was here or Dr. Ladd because they have been having some experience along this same line—beauty creams and so on, as you find advertised in the newspapers as being some famous recipe. Dr. Barnard and Dr. Ladd both have publications on those—in some cases they have gone so far as to give the composition of the product, the actual cost of production and then the selling price to the customer—thus showing the enormous profit there is in the sale of these cosmetics, and the enormous fraud. We have been doing a good deal of work along this line—I see Dr. Ladd is in the room now—and our Commission in Iowa has been debating whether it would be wise to publish some of our re-

sults or not. Dr. Ladd, have you ever experienced any legal difficulties as a result of publishing your results of examination of those cosmetics and show—the great fraud that they were upon the public?

Dr. E. F. Ladd: So far as North Dakota is concerned we have done considerable work along that line and we have made a good many bluffs but we have never been called yet and I don't believe that we will on that proposition, very successfully, at least, because our law covers those products—the same as your Iowa state law does. And when we analyzed those things, before publishing the analyses—as in most other cases of a similar nature—I send an analysis to the manufacturer and state that these are our findings with respect to the product and that the information is furnished him in advance of its publication so that he may know what the findings are. They have a chance then to start something if they want to do it. And sometimes they will come back on us pretty strong, too. I had a case in Chicago it took me three months to get straightened out. And with a patent drug case in one instance we had to send a man to Brooklyn, N. Y., to get a sample in order to confirm what he had found before. But when we published our results we never had any trouble.

Bulletin 9, which is a summary of those and different classes of preparations, we are going to republish together with the results of examination of six or eight times as many preparations we have examined during the last few months.

Dr. J. P. Street of Connecticut: I would like to say one word with reference to patents, and that is don't depend on previous analyses especially those made before 1906. I have just re-examined twenty-five toilet preparations and when I examined them before nearly all of them contained wood alcohol. None of them do now. In your talks before clubs, at fairs, and so on, it will pay you to be very careful what you say about a medicine you have not examined within the last six months.

Mr. H. C. Lythgoe: Three or four years ago we examined a sample of a well known dandruff cure and it contained wood alcohol. Massachusetts has a law which prohibits the sale of a drug containing alcohol unless the percentage of alcohol is stated on the label. We also have a law providing that no drug shall be sold or offered for sale which is intended for internal use if it contains wood alcohol. This drug, being intended for external use, did not come within the wood alcohol law, so we published it as being unsalable for the reason that it contained alcohol without the statement of the percentage of alcohol present.

As this drug was made outside of the state, the Boston Laboratory of the United States Department of Agriculture was notified of the nature of the drug. A few days after this notice was sent, one of the chemists of the Boston Laboratory asked me how close to the mark I went in using the Leach and Lythgoe tables for wood alcohol. I told him that as a rule I allowed 0.1 or 0.2 variation. A few days later I discovered the reason for this question, when we obtained a second bottle of this dandruff cure and found it to be labeled as containing a certain percentage of alcohol, which, upon analysis, was found to be pure ethyl alcohol. In this case the character of the sample upon the market was changed within two weeks.

Dr. L. F. Kebler: I am very much interested in the statements about wood alcohol in these toilet preparations. We have found a few instances of that kind,

like witch hazel, for instance, going into interstate commerce but they are very rare. We haven't found any in the last two years. We brought some cases but they let them go by default.

Pres. J. R. Chittick: We find it more often in perfumes and toilet preparations that are sold under some distinctive name. That is very common. The perfumes contain it very often, especially the cheap perfumes.

Dr. B. H. Stone: We have been up against the bay rum proposition in Vermont also but in a slightly different way. There are people who prefer bay rum as a beverage to the ordinary whisky, you know. Three deaths have recently occurred in Vermont from this cause. And we have picked up bay rum from a number of sources that was found to have been made up with wood alcohol. They were sent in interstate commerce from New York.

Dr. L. F. Kebler: The situation in the Bureau of Chemistry relative to bay rum is this: Unless a medicinal claim is made for the product we cannot reach it. Our law does not reach toilet articles pure and simple. We have come across a number of preparations that contained wood alcohol but we couldn't touch the situation at all.

A number of years ago when Indian Territory was still a territory, I received quite a number of samples from there, not only of bay rum but a lot of other things as well that were made up with wood alcohol and one report came in that a good citizen out there had consumed some of this stuff and had died as a result of it. Soldiers do it frequently. I don't know why they do it but they do frequently, and with disastrous results sometimes.

I must say that we are certainly very seriously handicapped on that wood alcohol situation. Under our law it is very difficult to prosecute unless in very exaggerated cases. I also want to point out the fact that there are some druggists in the United States who are still advocating the use of wood alcohol in medicinal products. It is very unfortunate but one reason for using wood alcohol, I believe, originated in part through the advocacy of its use in medicinal preparations by certain members of the pharmaceutical profession. I am sorry to see it though. Last year there was a paper read to the effect that it was a good thing by the same people in Pennsylvania. I haven't followed it up but I think it is very unfortunate that any one should take up a thing of that kind and defend it.

The Chairman: The next topic on the program this afternoon is a paper by Adolph Ziefle of North Dakota. Mr. Doolittle has volunteered to read that paper for us. It is on the Analysis of Commercial Asafoetida.

Mr. R. E. Doolittle of the Bureau of Chemistry:

ASAFOETIDA.

BY PROF. ADOLPH ZIEFLE.

North Dakota Food and Drug Department.

The United States Pharmacopoeia defines the natural product asafoetida as a gum-resin obtained from the root of ferula foetida, and probably from other species of ferula. The official requirements for purity are that it shall yield not less than 50 per cent alcohol soluble material and not more than 15 per cent of ash.

During the past year we have had occasion to examine 93 samples of the various forms of asafoetida as found in drug stores of this State—namely, the natural gum-resin, powdered and glycerinated asafoetida. Since these samples were dispensed when asafoetida was called for, we infer that these

93 samples are representative of what the trade would receive when they ask for asafoetida.

The 26 samples of gum-resin varied in their character so much that scarcely two samples looked alike. Some of the samples were grossly adulterated with various adulterants but principally with small stones and pieces of gypsum which had been carefully covered with asafoetida and allowed to dry. Many were undoubtedly adulterated with foreign gum-resins, because they showed a higher alcohol soluble content than that from the better grades of asafoetida, but the alcohol extract did not have the same strong characteristic odor. In order that we should get representative portions for analysis, each two-ounce sample was carefully disintegrated and then thoroughly mixed.



PROF. ADOLPH ZIEFLE,
Chemist North Dakota Food and Drug Department.

The following results show the character of the 26 samples. The average for alcohol soluble is 51.5 per cent; the highest, 77.60 per cent; the lowest, 28.62 per cent.

ASAFOETIDA.		
Number	Alcohol Soluble	Ash
6035	48.52	26.70
6057	36.55	47.39
7005	57.90	20.43
7043	28.62	42.28
7050	34.74	39.48
7051	35.94	34.09
7071	34.10	35.14
7130	34.16	41.13
7305	46.93	39.94
7313	54.66	28.94
7326	39.02	46.51
7331	73.68	15.10
7459	77.60	4.91
7458	64.91	14.36
7513	56.66	16.74
7579	75.94	3.13
7626	36.55	56.4
7632	52.3	13.36
7718	76.88	3.7
7790	68.06	24.53

Number	Alcohol Soluble	Ash
7792	46.71	38.23
7794	30.14	5.03
7795	54.44	16.50
7882	66.10	11.69
7883	34.60	47.68
7884	73.28	2.09

From the nature of the common adulterants such as vegetable tissue, foreign gum-resins and mineral matter, it would be possible to adulterate asafoetida so that it would conform to the U. S. P. requirements but which would contain very little asafoetida. For instance, by the use of foreign gum-resin it would be possible to make a product with high alcohol soluble and but very little ash. Reliable confirmatory tests for the detection of other gum-resins, especially for ammoniac and galbannum, should be a part of the U. S. P. tests for asafoetida, just as there are tests for arsenic and heavy metals for certain U. S. P. salts, etc.

The 61 samples of powdered asafoetida show great variation in physical characters, alcohol soluble, ash and the formation of emulsions. The inert drying agents were of various kinds, both organic and inorganic. It is probably the worst adulterated drug on the market and undoubtedly the adulteration was done in the United States, because scarcely any of the samples were fit to use as powdered asafoetida. Some of the samples contained so much drying agent in proportion to the drug that it was difficult to detect the presence of asafoetida with the naked eye. The alcohol soluble of many of the samples did not have the characteristic odor of asafoetida, so that the amount of alcohol soluble was not in all cases due to asafoetida.

It is necessary to have a drying agent to keep asafoetida in the powdered form, and from our experiments we find that from 25 to 30 per cent is sufficient. The drier should be organic, inert and not soluble in alcohol.

Since all gum-resins give an emulsion when carefully triturated with water, we made 10 per cent emulsions of all samples of powdered asafoetida to determine whether or not there was enough of the drug to cause emulsion. A very small amount of asafoetida when properly mixed will produce cloudiness with quite a large amount of water. In the following table you will note the alcohol soluble, ash content and whether or not 10 per cent of powdered asafoetida produces an emulsion.

The following table shows the results of our work on powdered asafoetida. The average for alcohol soluble was 31.67 per cent; the maximum amount found was 58.76 per cent; and the minimum, 10.25 per cent. The average of the ash content was 35.08 per cent; the maximum, 79.52 per cent; and the minimum, 7.24 per cent.

POWDERED ASAFOETIDA.

Number	Alcohol Soluble.	Ash.	10 Per Cent Emulsion.
6022	57.50	35.31	Negative
6056	27.72	57.99	Negative
7002	18.75	72.24	Negative
7004	19.74	9.45	Slight
7006	19.50	41.34	Negative
7007	19.43	8.28	Negative
7008	38.14	29.75	Slight
7009	25.50	56.08	Negative
7028a	37.10	12.57	Slight
7046	58.10	36.02	Negative
7088	20.57	9.35	Slight
7089	43.49	9.52	Slight
7128	58.71	57.05	Negative
7129	21.55	9.16	Negative
7162	45.95	8.18	Positive
7163	55.44	60.57	Negative
7293	26.96	51.24	Negative
7294	34.79	10.34	Positive
7297	24.92	62.82	Negative
7299	46.19	7.82	Positive
7309	26.10	46.13	Negative
7314	47.36	24.75	Slight
7315	28.43	49.74	Slight
7321	27.30	58.45	Negative
7328	17.71	64.65	Negative
7335	42.00	38.62	Slight
7378	23.80	69.15	Negative
7380	14.26	69.77	Negative
7382	49.51	29.73	
7444	19.33	8.86	Slight
7453	43.43	7.24	Slight

Number.	Alcohol Soluble.	Ash.	10 Per Cent Emulsion.
7455	23.80	62.12	Negative
7456	58.76	34.68	Positive
7458	43.64	14.41	Positive
7460	12.06	79.52	Negative
7471	48.01	8.57	Positive
7478	43.55	13.11	Positive
7488	25.48	64.06	Negative
7499	19.33	55.05	Slight
7580	48.92	8.99	Positive
7581	23.76	63.15	Negative
7582	25.26	48.10	Positive
7583	14.44	8.39	Slight
7630	18.04	12.53	Positive
7636	10.25	75.06	Negative
7656	43.1	12.04	Positive
7657	35.1	31.2	Positive
7716	43.95	11.2	Positive
7717	23.2	59.96	Negative
7791	11.94	69.05	Negative
7793	11.08	67.69	Negative
7796	47.90	9.42	Positive
7797	22.62	12.25	Positive
7798	18.17	72.44	Negative
7876	44.92	10.68	Positive
7877	25.30	10.89	Positive
7878	58.52	17.00	Positive
7879	48.21	9.65	Positive
7881	27.08	11.48	Positive

From this data it can be seen that powdered asafoetida is the worst adulterated drug on the market. Excessive amounts of drier have been used and in most instances the drier was inorganic and evidently was intended to increase weight. In many of the emulsions marked positive the emulsion did not have the odor of asafoetida so that some foreign substance caused emulsification.

From the proportionate number of samples of powdered asafoetida received it seems that it is being used more commonly than is the gum. For this reason it would be well to have powdered asafoetida made official, and to contain definite driers in definite amounts depending upon the condition of the gum-resin. It should also be bought and sold on its assay so that a pharmacist would know how much to use when making up official preparations.

The following samples of glycerinated asafoetida were analyzed. They were received in small rectangular cubes, each wrapped in paraffine paper and placed in a carton. As was the case in the samples of the asafoetida itself, this product contained sand, stones, pieces of rope and other adulterations which showed that it had been carelessly prepared. In order that this product could be used with any degree of accuracy it should be sold on assay.

GLYCERINATED ASAFOETIDA.

Number	Alcohol Soluble	Ash
6040	47.12	34.47
7003	35.54	5.96
7087	36.43	48.16
7090	57.36	22.95
7131	57.59	65.86
7317	54.27	25.08
7439	43.04	43.88

In order that the various kinds of asafoetida as found on the market shall have some degree of uniformity, we make the following recommendations:

First: Purified asafoetida should replace the asafoetida of the U. S. P.

Second: That powdered asafoetida should be made official and that the kind and amount of drier should be specified on the label.

Third: There should be definite U. S. P. directions for determining alcohol soluble.

Dr. R. E. Doolittle: This paper illustrates practically the same conditions that were found in our inspection of asafoetida when it is brought into this country. When we first began the inspection of crude drugs at the port of New York the greater proportion of the asafoetida brought in was adulterated in the manner described in this paper, that is, by the presence of foreign inert material.

One importer came in and said, he had just re-

turned from London, that the asafoetida he had seen over there would make splendid building blocks. And those importations were denied entry into this country. But it was only a short time before the exporters of this product in London and the other shipping centers of Europe got around this condition by adding foreign resins and gums which brought up the alcohol soluble material to the Pharmacopœial requirement and considerable work has been done in the New York laboratory and in the Bureau of Chemistry at Washington in devising methods for the detection of these foreign resins and gums, like galbaunum and similar substances.

Mr. J. P. Street of Connecticut: I would like to ask Dr. Kebler in this connection with reference to the lead number test. It has been disputed by the trade.

Dr. L. F. Kebler: Not very much disputed. A great many of them have been using it and nobody has been able to overturn it. The higher the grade of asafoetida, the higher the lead number. I think that powdered asafoetida is a thing that ought to be driven off the market, like wood alcohol. It has no place on the market. I have no patience with it whatever. It is simply a mixture of anything they want to put in there. And a lot of those things like that, they are diluted up until it is very difficult to detect them.

As Dr. Doolittle has pointed out, and as you well know, the manufacturer, the man who is adulterating his goods is always a little ways ahead of us. He knows what he is putting in there and we don't.

Now, Mr. Lythgoe, possibly I can answer in a measure now the question you asked awhile ago about the tests laid down in the U. S. Pharmacopœia and that is the tests in connection with asafoetida. That matter you spoke of was raised in the consideration of that product. When the exporters began to substitute some resinous material which would raise the alcohol solubility, the question came up as to what authority we had for keeping that out of this country. We then took the broad meaning of the word "test" and applied it to the entire description of the article in the Pharmacopœia. For instance, the Pharmacopœia says that asafoetida is such and such a product derived from such and such a territory and that was included as part of the test of the product. And this material then did not comply with the test in its entirety and that is the way we reached that particular situation.

Mr. H. C. Lythgoe: I presumed that was the way you did it. I am of the opinion, however, that a strict legal interpretation of that clause would throw out all of those descriptions. We don't have that wording in the Massachusetts law and there has been some attempt made to put it in there. Our law says "If it differs from the standard," instead of "as determined by the tests laid down in the U. S. Pharmacopœia and National Formulary."

Mr. L. M. Tolman of the Bureau of Chemistry: I don't know anything about drugs but we had a similar case come up before Judge Willard in St. Paul where a standard contained certain tests and Judge Willard held in this particular case that he was willing for his own information to accept any information which had a bearing upon the case, that we were not limited in that particular trial to methods which were laid down under the rules and regulations as methods of the Pharmacopœia or of the A. O. A. C., but that any tests which showed that the particular product under con-

sideration was not the product which was described in the definitions of the standard was acceptable. That is to say that the standard defined the product; it also defined the method for its examination but if by any other means you could reach the information and present it to the court that the product did not comply with the definition in the standard then he was willing to receive such evidence and would take it into consideration.

I believe this is a general proposition in any case. If you can show that the product is not what it is defined to be that is all that is necessary, even if you do so in some other way than that laid down in the standard's test. I think that would be acceptable to any court.

Dr. L. F. Kebler: Supplementing Mr. Tolman's remarks I want to say this also: In case you find that an article is adulterated and that adulteration is not revealed by the Pharmacopœial tests, we are at liberty to and do apply additional tests and the courts have received them. I don't think there is any question about our ability to win out in court in a case of that kind. I would risk it any time.

Mr. H. C. Lythgoe: Well, I would like to see the point raised and a case taken into court and see what would happen to it.

The Chairman: It is getting late and possibly some of you want to return to your hotel before starting for the shore dinner this evening, and I would like to make the following announcements before we adjourn.

The paper second on our program for today, "Egg Albumen in Baking Powder," by Dr. H. L. Jackson of Idaho, will be read before the general convention. The first paper for our Wednesday program, "A Study of Variations in Weights and Measures in Connection with the Net Weight Amendment to the Food and Drugs Act," by L. M. Tolman and W. E. Hillyer of the Bureau of Chemistry will also be read before the main convention by reason of its general interest. Dr. Rose's paper on "When is an Orange Mature and Wholesome" has been taken away from us and also the paper by Dr. Barnard on "The Wrapping of Bread." Both of those will be read before the main convention.

Now I have been figuring up the number of papers we have and I find that we have completed one-half of them. Tomorrow we will try to convene promptly at 2 o'clock and complete our program.

If there is no objection we will now stand adjourned until tomorrow afternoon at 2 o'clock.

Adjourned until July 15, 2 p. m.

WEDNESDAY, JULY 15, 2 P. M.

Presiding, Mr. J. R. Chittick, Iowa, President Section B.

President Chittick: The first paper we have this afternoon is on a very important subject, the question of "Clean Milk and Its Production." This paper will be given by Mr. C. P. Moat of Vermont.

Mr. C. P. Moat:

CLEAN MILK AND ITS PRODUCTION.

C. P. MOAT, VERMONT.

I feel as if I ought to apologize for presenting this paper before this section as it is not strictly a laboratory problem but one of education and inspection. Nevertheless, any man connected with a board of health laboratory must feel that milk is our most important food, and the clean milk problem one that we shall always have with us.

Vermont is a small and distinctly rural state, having but

five cities, the largest of them (Burlington) with a population of 22,000. Consequently our milk problem is different from that of larger states and cities where the product comes from a distance and many hours elapse between its production and consumption, and what can be done with us cannot be done in places where the milk goes through the hands of larger dealers and contractors.

The Vermont milk laws for market milk provide for the inspection and licensing of all dealers by the local boards of health under the supervision of the State Board of Health. Barns and equipment are inspected by the local or state inspector, the score card being used. "Licenses shall not be granted unless the cows are healthy and the premises and utensils are in good sanitary condition, nor unless cream and milk are obtained and sold in a neat and cleanly manner." Licenses must be renewed each year. Samples must be examined at the State laboratory at least twice a year. The city of Burlington has a city ordinance relating to milk and a milk inspector to carry out its provisions. It requires the dairies to be tuberculin tested every two years; requires a bacterial count of not over one hundred thousand per cubic centimeter; a temperature of not over fifty degrees F.; and no dirt or extraneous matter of any kind is permitted.

When this work was started, we found the usual conditions of the New England farm. Many progressive men had up-to-date equipment, but the larger part of the milk dealers were carrying on their business on the same place, with the same equipment and in the same manner that their grandfathers did. The laboratory examination of milk from these latter farms showed it to be very dirty. A campaign of education was carried along with the inspection, with the result that these barns have been better ventilated and cleaned and the equipment brought up to a very good condition. Suggestions such as using a small-top milk pail, inexpensive in itself, were often adopted with good results. Many of the producers need constant watching and always will. The laboratory examination shows a great improvement in the physical condition of the milk. Very few of our milks now show much sediment but quite a large number show a small amount of visible dirt.

The chemical side of our milk problem may be dismissed with a few words, as the milks are generally well above standard. Our chemical standards are the same as the federal standards. Most of our cases of fraudulent adulteration occur in milks which are sent into neighboring States and our help is asked in their prosecution. The physical examination with regards the amount of dirt present is our problem. I think the amount of visible dirt present to be a better test for dirty milk than the bacterial count. It is the consumer's test, either in his glass or bottle. It means more to a jury than the figures of a bacterial count and in these days when there is such a diversion of opinion among milk bacteriologists, especially when it comes to expert testimony, there will be less confusion if an amount of dirt is shown rather than a report of many thousands of bacteria to a cubic centimeter. It is a better test to show the milk producer.

The Committee on Bacteriological Standards for Milk of the American Public Health Association is considering the introduction of the sediment test in their next report. We need not know the exact history of the milk, its temperature, its age or what has happened to it on the various stages of its journey. Insoluble dirt shows lack of care, either at the time of milking or in its subsequent handling; while absence of visible dirt may only mean careful straining, we generally find that, by bacteriological examination, absence of insoluble dirt is usually accompanied by less soluble dirt. In fact, any man that is careful in putting a sediment free milk on the market generally uses care throughout its entire production.

At first we judged the samples from the sediment in its original pint jar and, in cases of very dirty milk, sealed these up and preserved them for evidence. These proved too bulky and sedimentation by the use of the centrifuge and subsequent filtration proved unsatisfactory. The best method we have yet found is that of filtration through cotton discs, preserving these by means of formalin, and mounting and sealing same under glass. A petri dish with a white blotter as a foundation makes a good mount. These discs can be returned to the local health officer and shown to the dealers or they can be kept on file for future reference. The New York Board of Health has a good method of grading these discs by comparison with discs from litre lots of milk to which have been added two and a half, five, seven and ten milligrams of the material which usually finds its way into the milk.

For a few years we graded our milks as normal (milk free from all traces of sediment); passable milk (milk contain-

ing slight traces of extraneous matter); barely passable (containing a bit more dirt); and dirty (containing a decided sediment). No great improvement taking place while using this grading, we have dropped this classification and only allow milk without visible dirt to appear in the legal column of our bulletin. The names of dealers whose milk contains visible dirt appear in the dirty milk column and the same names are usually present.

When we consider that the production of clean milk does not call for expensive equipment, but only means constant care and cleanliness, why do these men remain in the dirty milk list? Because the average producer does not think it pays. Exceptional men take advantage of being constantly in the clean milk column and get their pay not only in a good name, but, better still, in money—as they ask and get more for their product. Why do not all dealers get higher prices so that they will know clean milk pays best? Because the consumer is not educated to the point where he will pay more for clean milk than for milk containing visible dirt. I know many instances where intelligent people change milk dealers because they can buy milk with more or less visible dirt at six cents a quart instead of paying eight cents for clean milk. We have shown the farmer how he can produce milk under sanitary conditions and have succeeded in getting a market milk that contains only a small amount of visible dirt. Now to have him produce milk without any dirt, we must help him to get a higher price for his product, and to do this we must educate the consumer. Rules and regulations to help the consumer handle milk properly after its receipt from the dealer have been issued in a number of cities and States, but I have failed to see any literature teaching the people that clean milk is worth more than unclean. Considering its food value, milk is very low in price, and if the pure food magazines and official publications can make the consumer appreciate and pay more for food in package form, certainly they should be able to do the same for clean milk.

We help the manufacturer of fancy package goods sell his product. Why should we not help the dairyman sell his at a higher price? While we should protect the pocketbook from fraud, we should also protect it from poor food values, but certainly no one could raise any such objection in our asking a higher price for clean milk.

The question may be raised if this will help the situation. Our constant inspection and supervision of the products will always be necessary, but with the incentive of getting more money this will be looked upon as a help rather than a nuisance.

Am I going too far in trying to have market milk free from all sediment? I think not, when some dealers do produce milk of this quality without expensive equipment, if they get enough for their product to interest them in using greater care. It is a question of education, formerly of the producer and now, I believe, of the consumer.

Let us teach the consumer that clean milk is a perfect food, containing all the elements necessary for human nutrition, in an easily digested form, but that dirt impairs its food value by lowering its digestibility. Show the public that milk according to its food value has not increased in price as have other food products. Also let them know what has been done towards helping the farmer to produce sanitary milk, and let them understand that to produce such milk he must receive a reasonable profit for his work. Let us use our bulletins, our talks before medical societies, and before women's clubs, to interest the public in this problem.

Pres. Chittick: Is there any discussion of Mr. Moat's paper? This is a subject that is vital. Milk is the most important food product that we have to handle in the laboratory.

If there is no discussion we will pass on to one of our other papers. I might make mention for the benefit of those who were not present yesterday that four papers on our program are to be read before the main convention on account of their importance. One paper that is scheduled for this afternoon, "A Study of Variations in Weights and Measures in Connection With the Net Weight Amendment to the Food and Drugs Act," by L. M. Tolman and W. E. Hillyer is to be delivered before the regular body. Also the paper on the "Wrapping of Bread," by Dr. Barnard, and "When is an Orange Mature and Wholesome," by Dr. Rose of Florida. Then the other

papers on the program have been combined so as to cover the entire program in two afternoons instead of three, as originally planned. That is the reason for the mixed up condition of our program at this time.

The next paper will be "The Detection of Adulterants in Cocoa Butter, with Special Reference to the Quantitative Determination of Cocoanut Oil," by Mr. H. S. Bailey of the Bureau of Chemistry at Washington. This paper is presented only by title and will be read by Mr. H. M. Loomis, and is in a preliminary state and therefore is not ready for publication.

Pres. Chittick: Is there any discussion or comment on this paper? I would like to ask this question here: Has any one been doing any work on chocolate candies and confectionery along this line? The reason I ask that question is this: Recently I was on the train and got into conversation with a salesman who is selling supplies to candy firms over the country, and I had an opportunity to get information from him about the subject, although he did not know why I was interested in it. And the report he gave me was this: Oftentimes parties would buy the cheaper fats, to replace that which had been extracted from the chocolate, and that is how they are cheapening these candies to a great extent.

Mr. H. M. Loomis: That is the purpose of this work started by Mr. Bailey on the chocolate coating of candy.

Pres. Chittick: I believe that will open up quite a question. Are there any other comments to be made on this paper? If not, the next paper is on "The Detection of the Coating and Polishing of Rice," by J. E. Mastin of Mississippi. This paper will be read by Mr. Geo. B. Taylor of Louisiana.

Mr. Taylor:

AN IMPROVED METHOD FOR THE DETECTION OF ARTIFICIALLY COATED OR POLISHED RICE.

By J. E. Mastin, Agricultural College, Mississippi.

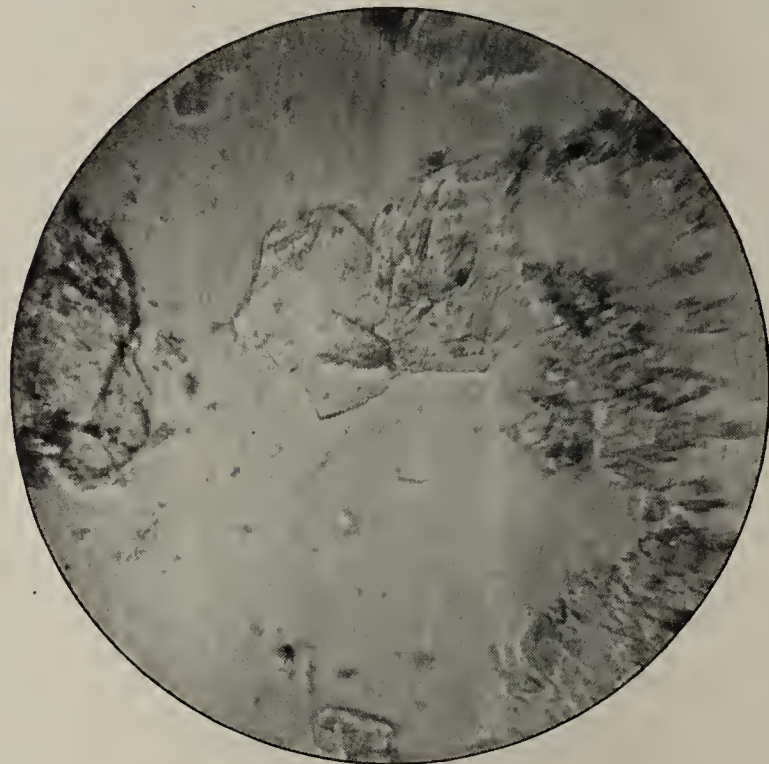
PROCESS OF MILLING.

The rice is threshed in the straw by a thresher similar to the one used to thresh small grains. From the thresher it is sold or taken to the miller as "paddy" or the uncleaned grain.

The grain is first screened to get rid of foreign materials, then passed to the milling stones where the outer husk is removed. After leaving the stones the material passes into horizontal screens and through shakers and fans, where hulls, chaff, broken and whole grains are separated mechanically.

The following are photographs of the residues obtained from different samples of rice by the permanganate method:

The next process is that of polishing or decorating the grain. This process was formerly done by pounding the grain with large wooden pestles, weighing about 400 pounds, in large mortars, also made of wood. Of late years the old

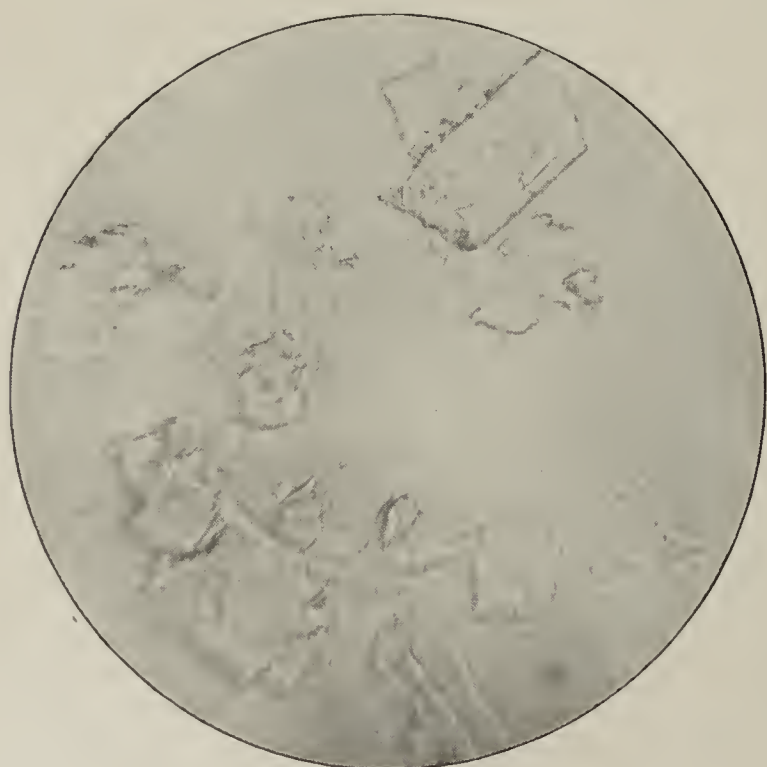


II.

(240 X Diameter.)

TALC CRYSTALS, FROM AN INSPECTOR'S SAMPLE, LABELED "RICE." "COATED WITH GLUCOSE AND TALC."

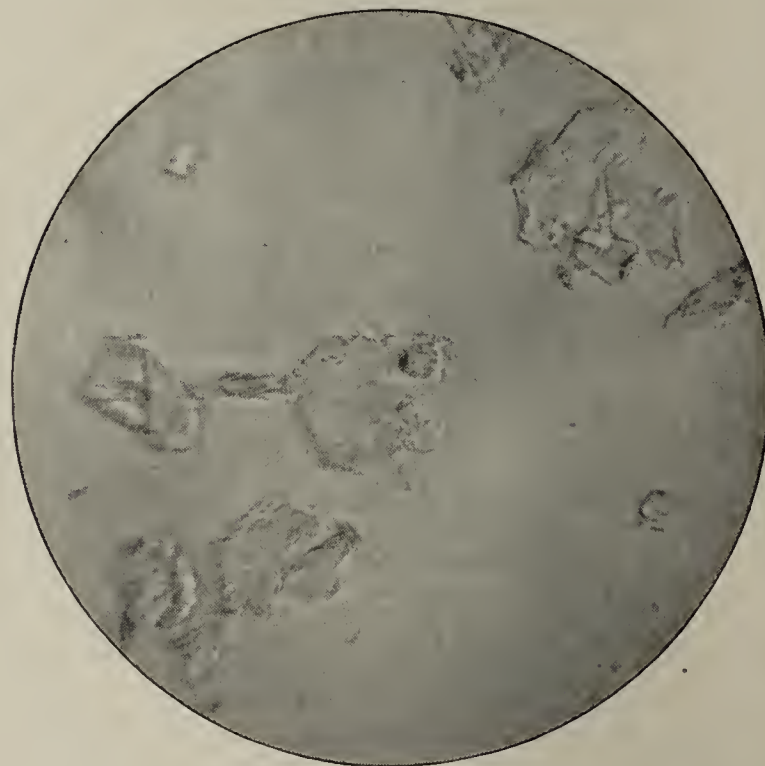
process has been replaced by a small machine, known as the "huller." The huller resembles a large sausage mill in outward appearance, and consists of a short horizontal cast iron cylinder fitted with ribs on the interior surface. A shaft also provided with ribs, revolves inside this cylinder. The rice enters through a funnel at one end, and passing through the machine, the friction against the ribs removes the outer cuticle and much of the gluten layer of the grain, together with the germ. The grain then passes through screens and fans, where the bran and other particles are removed from the grain.



I.

(240 X Diameter.)

TALC CRYSTALS, FROM MIXTURE OF TALC AND STARCH.

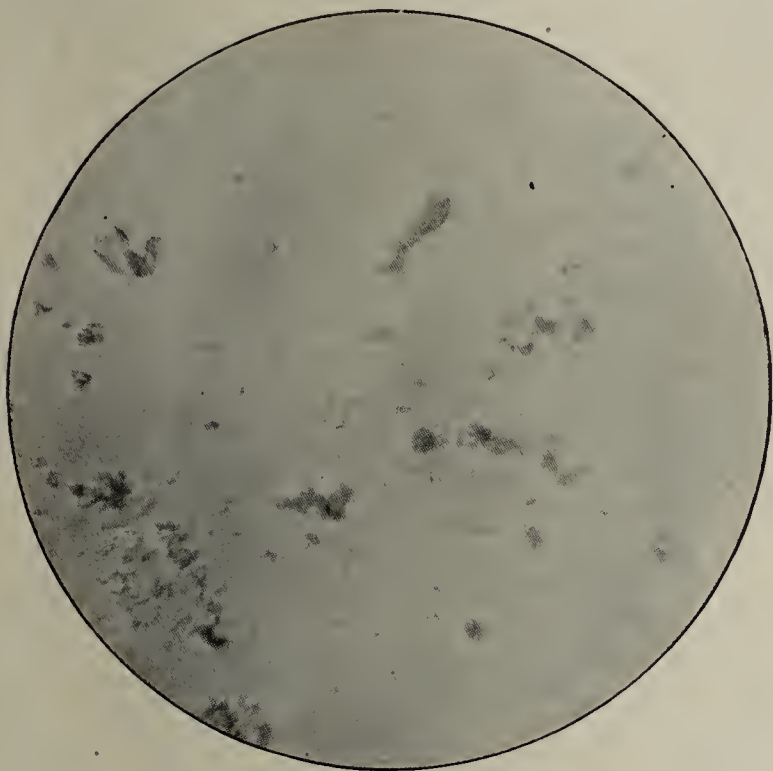


III.

(240 X Diameter.)

TALC CRYSTALS, FROM INSPECTOR'S SAMPLE OF RICE. NO LABEL.

Now the grain is ready for the final process of polishing or decorating. This is effected by rotating the rice in cylinders of wood and wire gauze whose surface is covered with tanned moose or sheep skin. The powdery film of gluten and starch cells, visible on the grain after removing the bran, is rubbed off, and this constitutes what is known as rice flour or rice polish.



IV.

(240 X Diameter.)

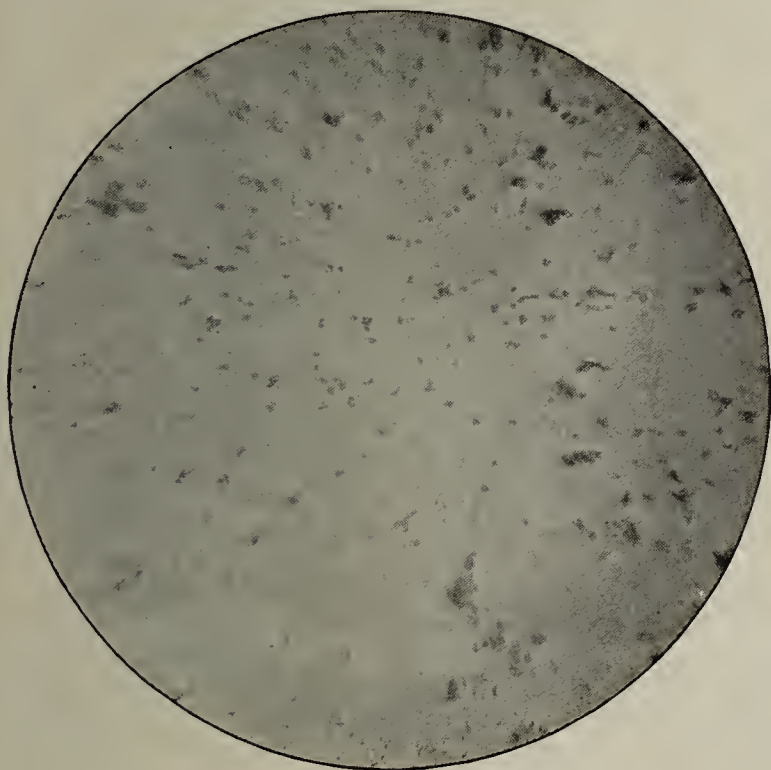
RESIDUE, SHOWING ABSENCE OF TALC CRYSTALS, FROM SAMPLE OF RICE POLISHED WITH BRUSHES.

From this machine the grain are run over screens with meshes of various sizes, and separated into its appropriate grades.

The by-products, such as bran and polish, are used in various ways. one of them, the polish, being mostly exported, for the manufacture of buttons, and also used to some extent as a stuffing material in the manufacture of sausage.

Talc, Glucose and Paraffin are used to a very large extent in the process of polishing rice inferior in color or grade.

It is generally known that "unmilled" or "unpolished" rice is very little sold on the market, or through brokers, because it has a dark and an inferior appearance. Indeed most people have never seen unpolished rice. The rice that is most highly polished, and has a fine pearly lustre, is the one that finds a ready sale on the market. The consumers are in part



V.

(240 X Diameter.)

RESIDUE, SHOWING ABSENCE OF TALC CRYSTALS, FROM SAMPLE OF UNCOATED AND UNPOLISHED RICE.

ignorant of what whole unpolished rice should be, and the rice on the market is often only an inferior rice that has been highly polished to conceal inferiority.

In order to show the valuable constituents removed from the rice by polishing, the analysis of a "whole rice," "brushed rice" and "polished rice" will be given below in a table

	Total Ash %	Insol. Ash %	Total Protein %	Total Starch %	Total Oil %
Uncoated—whole rice ...	1.24	.24	8.31	82.0	2.07
Coated—with Glucose and Talc .....	.55	.2	9.56	80.6	.58
Brushed rice .....	.44	.21	8.51	81.6	.57

The insoluble ash is that portion of the ash which does not dissolve in 10% hydrochloric acid.

It can readily be seen from this table that the outer portion of the grain contains practically all the mineral matter, as well as a greater part of the oil and other valuable constituents, as will be shown later on.

The composition of the rice "flour" or rice "polish" is as follows:

CALCULATED TO WATER FREE SUBSTANCE.

Crude Ash %	Total Nitrogen %	Crude Protein %	Fat %
5.29	2.13	13.31	11.93

In those countries where rice is the staple food, and especially the Philippines Islands, China and Japan, there has developed a disease among rice eaters known as "Beriberi." This disease caused such a great loss of life in the army that the government sent Weston P. Chamberlain and Edward B. Vedder to the Philippine Islands to make a study of this disease and find a cure, if possible. They soon found that this disease predominated where highly polished rice was being used as the principal part of the ration.

This disease has the following characteristics: produces sluggishness, nervousness, lack of sleep, and finally paralysis and then death.

It was found by a long series of experiments that beriberi, was caused by eating polished rice, also that rice polish contained the constituent, or combination of constituents, that had the power of preventing the disease, and that unpolished rice did not produce the disease.

Here, it is interesting to note that a mother affected with beriberi, and nursing a child, will in every case cause the child to have the disease, but, on the other hand, if the mother is fed rice polishings, or a water extract of the same, she will probably be cured and the child freed from beriberi.

For brevity, the conclusions of the many experiments done by Mr. Chamberlain and Mr. Vedder substantiate the theory that polyneuritis gallinarum and beriberi are caused by the deficiency of some as yet unknown substances in food, and have shown that this substance is not phosphorus.*

Kohlbrugge's theory that beriberi is caused by an acid intoxication, which is due to the fermentation of rice by various saprophytic bacteria contained in the kernel, must be regarded as untenable.

They also state that the following substances; nitrogenous compounds, such as arginin, histidin, asparagin, amnio acids, lipoids of the lecithin group, cholin and extract of onions may be added to the list of substances which they have shown to be of no importance in preventing neuritis of fowls.

The neuritis preventing principle is insoluble in ether and soluble in cold water and alcohol. It has been shown that five cubic centimeters of polish extract (equivalent to five grams of rice polishing) is sufficient to protect fowls subsisting upon polished rice. Two and one-half cubic centimeters (equivalent to 2.5 grams of polishings) is insufficient to confer complete protection against polyneuritis.

Polyneuritis gallinarum is not prevented by adding to a diet of polished rice any of the following substances: potassium phosphate, potassium citrate, potassium chloride, magnesium phosphate, phytin, phosphoric acid, or phosphoric acid combined with potassium chloride.

Polyneuritis gallinarum may be prevented by means of an extract of rice polishings, containing only those substances soluble in cold water and cold alcohol. The extract, so far as at present is known, has the following composition:

	Per cent.
Total solids	1.34
Ash .....	.03
Phosphorus pentoxide .....	.00165
Nitrogen .....	.0406
Sucrose .....	.88

As yet, there is no adopted method for the detection of coated rice, in fact there has been very little work done along this line either by the United States government or state laboratories, the heads of several of the government laboratories furnishing tentative methods, which were tried out on samples of known origin, and it seems that they base their conclusions on the appearance of the ash, and amount of insoluble ash in 10% hydrochloric acid. That is, if a sample has an insoluble ash of 0.1%, or more, it was deemed coated. The fact that the ash from coated rice "stands up" and does not fuse indicates coating, but when a rice ash fused readily no distinction could be drawn between a polished (uncoated) and an unpolished rice. A great many samples were tried out by the several methods suggested, and while in some cases a conclusion could be reached as to whether coated or not, many times the results were negative. The fact that the preparatory polishing of the rice, before glucose and talc is added in the polishing drums, removes a large amount of the total mineral matter in the rice, and the amount of glucose and talc added is less than one part in a thousand, and only a small part of this really sticks to the finished grain, the addition of talc does not increase the percentage of ash beyond the limits. In fact coated rice contains about one-third the ash of the whole grain.

Then again, the ash of rice contains a large amount of magnesium, as does talcum, hence, determining the presence of magnesium, calcium, silica, etc., lead to no true conclusions, except in samples very heavily coated.

ANALYSIS OF RICE AND TALC.

Rice.		Talc.	
K ₂ O	5.48%	MgO	31.7%
Na ₂ O	1.48%	SiO ₂	63.5%
CaO .....	.20%		
MgO	2.29%		
P ₂ O ₅	9.69%		
SiO ₂	79.46%		

Determining the percentage of oil and ash, together with the physical appearance of the rice, will readily show brushing or polishing, but does not indicate coating.

METHODS LEADING TO THE METHOD NOW USED IN OUR LABORATORY.

(a) Ten to fifteen grams of rice were covered with distilled water, and vigorously agitated for about three minutes. The aqueous solution was decanted off into an evaporating dish, and brought to dryness, then ashed, then taken up in dilute hydrochloric acid, magnesium and calcium being tested for in this solution in the usual way.

This method was used for some time, but it was found later to be unreliable inasmuch as uncoated rice would give a test for magnesium and calcium. It was also found very troublesome to get a good ash free from carbon.

(b) As in the preceding method, ten to fifteen gram sample was covered with distilled water and vigorously agitated for about three minutes, and the aqueous solution was decanted off and centrifuged. The residue was placed in a small porcelain dish and ashed. The ash was then taken up with dilute nitric acid to form nitrates with magnesium and calcium. This acid solution was allowed to stand about one-half hour, and decanted off, and the residue washed with distilled water and examined with compound microscope.

This method was much superior to the first, but it required a great deal of time, which is an important item when a large amount of work is being done.

The greatest fault of this method is that the talc crystals are so badly fused they fail to give the characteristic shape and outlines in the field of the microscope.

After trying out the previous methods, the following method proved to give the most satisfactory results.

From five to ten grams of rice is covered with distilled water and vigorously agitated. The aqueous solution is decanted into a small beaker. About one-half grain potassium permanganate (or its equivalent) of saturated solution of permanganate is added. This solution is made acid with dilute sulphuric and digested for ten or fifteen minutes. The solution, after cooling, is cleared by means of hydrogen peroxide, and allowed to stand until the residue settles to the bottom of the beaker. Then the clear solution is decanted off and the residue washed with distilled water, and examined under the compound microscope.

The advantages of the permanganate method are:

- It is a time saver.
- Does not require evaporating and ashing.
- Does not fuse the talc crystals.

Remarks—About one hundred fifty to two hundred samples have been examined by this method with satisfactory results.

I would recommend the following tests for the detection of adulterated rice:

First—Test for glucose (because glucose and talc are nearly always used together for coating rice).

Second—Test for paraffin in those samples which give negative results with Fehling's solution.

Third—Use permanganate method on samples containing glucose.

Fourth—Samples are sometimes found to have glucose without talc.

Fifth—Coated rice always has a fluffy amorphous ash, while the ash of an uncoated rice fuses.

CONCLUSION.

I do not believe an ash containing 0.1 per cent insoluble ash in 10 per cent hydrochloric acid is a reliable criterion of the presence of talc in rice. Neither the determination of the ash constituents, nor the constituents of water extract, are to be depended upon for the detection of talc. However, the physical appearance of talc crystals can readily be identified under the microscope after proper preliminary treatment, due to their slight solubility in dilute acid, and which constitutes, in my opinion, a reliable and rapid method for the detection of talc in the coatings of rice.

The "wet method," or the method of destroying the organic matter by means of potassium permanganate in acid solution, has the advantage of not injuring the structure of the talc crystals as do the older methods of ashing.

Pres. Chittick: Is there any discussion on this paper?

Mr. H. H. Hanson of Maine: I might say just a word in confirmation of the results obtained by the author of that paper. Several years ago we found in our state that practically all of the rice was coated and we began to examine it and as a result of our examination there is very much uncoated rice there now and I think it is possible to obtain both kinds and if it is coated, it is so marked. In our examinations we found that an examination of the ash got you nowhere and the test we relied upon was the test for glucose and we followed that up by the microscope to detect the talc.

Pres. Chittick: During the past year the State of Iowa has made a ruling prohibiting the shipping into the state of rice coated with talc. We had the jobbers with us on that proposition and they helped us to enforce it, so that I believe now we have entirely stopped this product from coming into the state. The jobbers feared they would experience a lot of trouble with weevils but they found that if they used an air tight package the rice would keep all right and they did that and they have not had the trouble they thought they would.

If there is no further discussion on this we will pass on to the next paper. We will now have a paper on "The Preparation of Food and Drug Exhibits for Educational Purposes," by F. L. Shannon of Michigan.

*The Philippine Journal of Science, Vol. VI, No. 3, Section B, Medical Science, June, 1911.

THE PREPARATION OF FOOD AND DRUG EXHIBITS FOR EDUCATIONAL PURPOSES.

By F. L. SHANNON,
State Analyst, Michigan.

The duties of a dairy and food department are two-fold: that of enforcing the laws and that of teaching the consumer, the dealer and the manufacturer what the laws are and how they can best help him to enforce it. To do these things various methods are adopted, such as speaking before women's clubs, civic associations, conventions, etc., sending out bulletins issued by the department, newspaper publicity, setting up exhibits at state conventions, state fairs, etc. These methods are all effective in their several ways. They all reach a great many people and do a great deal of good, so it is not the purpose of this paper to present a means of attaining something new but more for the purpose of discussing this important topic with you and giving you our experience in Michigan in preparing and conducting educational exhibitions.

Exhibits in general have been considered from time immemorial the most effective way of presenting a subject of any kind. An exhibit only carries out the old adage, "Seeing is believing." In my opinion a well gotten up and properly arranged exhibit will go further to bring a fact home than any other means at the disposal of departments such as ours.

In preparing educational exhibits there are certain fundamentals that must constantly be in mind. It is an accepted fact among advertising men that color and motion are the two most important things to attract attention and to attract attention is the first purpose of an exhibit. Of the two, it has been object, no matter if it is dull black or white, will always defy experience that motion is by far the best. Any movable mand attention. In this connection let me relate an instance: For an exhibit which we prepared for a number of fairs in our State, we devised a large clock which showed how flies increased in numbers from June to August. We had an electrical attachment on the back of the clock which moved a dial at intervals of 15 seconds. We installed the clock at the State Fair and set the dial moving so that it stopped every few seconds to point to that part which we wish emphasized. It attracted considerable comment and attention. While moving to another fair the electrical appliance became broken and we were obliged to set the clock up with the dial stationary. Thousands of people viewed our exhibit each day, but I don't believe 10 per cent of them ever saw the clock, although it was in a most conspicuous place. Motion exhibits, however, are expensive. The first cost is considerable, often being \$200-\$300 for a single piece and they are generally quite delicate and easily broken; besides, there is a cost for operating. The expense alone probably prevents their more general use.

The next thing in importance to motion is color. This when combined with motion is the ideal exhibit, but color without motion attracts. This I can best illustrate by relating another instance. In the first exhibit that we prepared we attempted to show that candies, soft drinks, jellies, etc., are often colored with a coal tar dye. To do this we exhibited a lot of material that we had previously tested and found to contain coal-tar colors. To call attention to this fact we merely set up a placard stating that the samples here shown contain coal-tar dyes. Of course, people viewing the exhibit read the placard but it did not seem to cause any considerable comment, so we adopted the scheme of extracting the dye from the food products and coloring a piece of wool with it. We then mounted the containers with the food products in them on a board and showed a piece of colored wool along with each sample, making the statement that the piece of wool was dyed with a coal tar dye which was extracted from the food product shown along with it. This has attracted considerable attention and much good has come of it in an educational way.

An exhibit must necessarily carry a number of placards containing various statements of facts about certain things. Here another fundamental of advertising comes in, viz., to say the most with fewest words possible. I have seen a number of public health and welfare exhibits whose attraction and force were lost because they had overlooked this feature. The placards contained too much reading matter. One who is especially interested in a given subject will take the time to read the mover carefully, but the average individual will only read the "head-line" and will not bother with the fine print. In my opinion it is better to have ten large placards with a

single sentence in large letters telling only a part of the story, than to have twenty in small letters telling the whole story.

Pres. Chittick: This paper is now open for discussion. It seems in my work, well sometimes I wonder whether I am a chemist or an artist or what I am. We have so much of this educational work to do in making up exhibits and it requires a very great deal of work and ingenuity. I think the work is of such value, however, that I would like to see photographs taken of the exhibits of the different states and have them sent to every other state. I think if every state would come here to these conventions with photographs of that kind, illustrating what they are doing in their own states, it would be of great value to us—or bring any literature along they may have on the subject. I thought I would like to suggest that before the main convention, that each year there should be submitted, in condensed form, an account of the exhibits put out by each state so that we could get their ideas and carry



MR. F. L. SHANNON,
State Analyst, Michigan.

them back with us. I think that would be of immense value.

Mr. H. E. Wiedemann: It has been the custom in our state for the food department to have an exhibition at the State Fair. Unfortunately we have never been in a position to have an exhibition at the county fairs. The exhibit we have consists of essentially the same things Mr. Shannon has spoken of in his paper. We have the food exhibit and we also carry out the idea of coloring a piece of silk or wool with the color extracted from the foods. This year the secretary of the State Fair asked our Commissioner, Mr. Fricke, to get up a pure food show. I think that is something new—so far as I know, at least. The idea of the secretary of the State Fair was to have the manufac-

turers of foods and things we know are all right to send a man to the State fair with their exhibits and have them under the direction of the Food Commissioner of the State of Missouri. The Commissioner has not had very much notice of this request but I think he is working on it now and if he is successful in getting it up, I think it will be a great education in itself and that it will bring before the people of the state the work the department is doing and it will bring before them also the work of the manufacturers who really are conscientious and show them that there are manufacturers that are trying to obey the law. You know some people think that nothing made in a city is fit for food. I know that from the remarks the people made who visited our exhibit. They would say, "Oh, that is made in a factory. I would rather eat the stuff Mother makes at home." But we know that often it is infinitely better than the product made in the kitchens in the homes throughout the United States. There are cer-

a room somewhere and show those pictures. We have a portable moving picture outfit consisting of motor, dynamo and Powers machine we carry in a large covered wagon which we can use at the state fairs in school houses or even on outside walls at night, and the manufacturers of films are always glad to cooperate with you on this sort of thing. If there is any call for educational films that call will be met by the manufacturers and I think it would add greatly to the good accomplished by those exhibit trains to have some moving picture films.

Mr. F. L. Shannon: We have tried that out to some little extent in Michigan, though not to the extent that you have, Mr. Stone. We have a film on flies now and I think the State Board of Health has one on milk. This we are going to show on our trip through the northern peninsula. Last year we only traveled through the lower peninsula; this year we are going through the north.



TRAIN CONTAINING EDUCATIONAL EXHIBIT OF THE MICHIGAN DAIRY AND FOOD DEPARTMENT.

tain insanitary conditions in small communities and on the farms that cannot be overcome. They haven't the means for the sanitary production of food there that are present in the factories, so that if we can instill into the minds of the people at large the fact that the Food Department is exerting a control of the manufacture of food products in the large cities it will be a great thing for them and it will bring confidence in those products. I think this food show we are contemplating will be a step forward in that campaign of education.

Dr. B. H. Stone of Vermont: I want to suggest the use of moving pictures in this connection, as in public health work, and education work in improving dairy conditions and so on; they will always draw a great crowd. Such a feature could be used in connection with the exhibit car spoken of in Mr. Shannon's paper. Arrangements can be made in the small towns to get

Pres. Chittick said this sort of work was a little bit out of the line of a chemist's legitimate activities perhaps, but we consider in Michigan that it is worth all the time and money we spend on it. We feel that our work is as much educational as it is any other thing, and that we can enforce the law through educational methods as well as by bringing prosecutions. It takes an awful lot of time and quite a lot of money to get up a thing of this sort. One thing I did not mention in the paper that will save lots of time in the long run, and that is to keep in mind all the time that you are building something permanent. That exhibit there, I was three years in building. But everything we put up we tried to put up so that it would last for three or four years and we have it in such shape that we can carry it around with us and ship it without any trouble. Those things in the center there are all on boards, and the bottles are all wired and then glued.



INTERIOR VIEW OF FRONT OF CAR NO. 1, EDUCATIONAL EXHIBIT OF THE MICHIGAN DAIRY AND FOOD DEPT.

We can carry it any place we like. We have the thing so arranged that we can put up that entire exhibit, 60 running feet, in any room we happen to run across without nailing anything to the wall. That, you will find, is a very important thing to consider, because you never know just where you are going to have to put an exhibit. For instance, suppose we were going to show it in this room. We could never put any nails



INTERIOR VIEW OF REAR OF CAR NO. 1.



INTERIOR VIEW OF CAR NO. 2, EDUCATIONAL EXHIBIT OF THE MICHIGAN DAIRY AND FOOD DEPARTMENT.

into these handsome walls and consequently we would have to dispense with the exhibit.

Mr. Geo. B. Taylor: The exhibit train of the Louisiana State Board of Health consists of two cars. We have covered the state twice—once in 1911 and again in 1913. On our last trip we visited every parish in the state and inspected 256 communities. We find that our moving picture show is one of the best features

of the exhibit. We have altogether eight films covering different health subjects. We are constantly changing and bettering exhibits. In fact, the whole arrangement is changed about every six months. My department is interested primarily in food and drug exhibits. Whenever I find something interesting or something that I think would make a good exhibit, I put it aside for the exhibit car.



INTERIOR VIEW OF REAR OF CAR NO. 2.

Mr. F. L. Shannon: I would like to ask Mr. Taylor if he keeps his train equipped all the time.

Mr. Geo. B. Taylor: Yes. We have one car for a living car and the other for exhibition purposes. The living car is a regular private car; we have a library, a kitchen and dining department, baths and sleeping berths. The whole car is well arranged.

Mr. F. L. Shannon: You use only one car for the exhibit?

Mr. Geo. B. Taylor: Yes; the other one we use for living purposes.

Mr. F. L. Shannon: Do you give your moving pictures in the car?

Mr. Geo. B. Taylor: No, we give them either in a hall or out of doors. Now we generate our own electricity and can throw the pictures on a screen outside the car in the open.

Pres. Chittick: There is one suggestion that might be of value, though perhaps most of you know of this, but it proved quite a time saver to me. In the making of these charts I was directed to some paper letters and figures that could be pasted on the cardboard and I got those and that has saved us a good deal of time and money in having these signs painted and I think they are very much neater than any painter could make them. These letters and figures come on a glazed paper, in black and white and red, in various sizes and styles. We have made all of our charts with a black background with white and red letters. I had thought the black background not a good one but afterwards I liked it better than the white background. They are easy to read and the letters stand out more prominently. We use a dull black background. We get the letters from the Tablet & Ticket Co. of Chicago. I give this for the information of those of you who may be making charts. Other people may make them but that is where we get ours.

Dr. L. F. Kebler: With regard to the moving pictures you spoke of, are they of the screen type?

Mr. Geo. B. Taylor: Yes, thrown on the wall or a sheet anywhere.

Mr. P. D. Dunbar: I was asked to read Mr. Chace's paper on "The Sweating of Oranges."

Pres. Chittick: Very well. We will hear that.

Mr. P. D. Dunbar:

SWEATING OF ORANGES.

By E. M. CHACE.

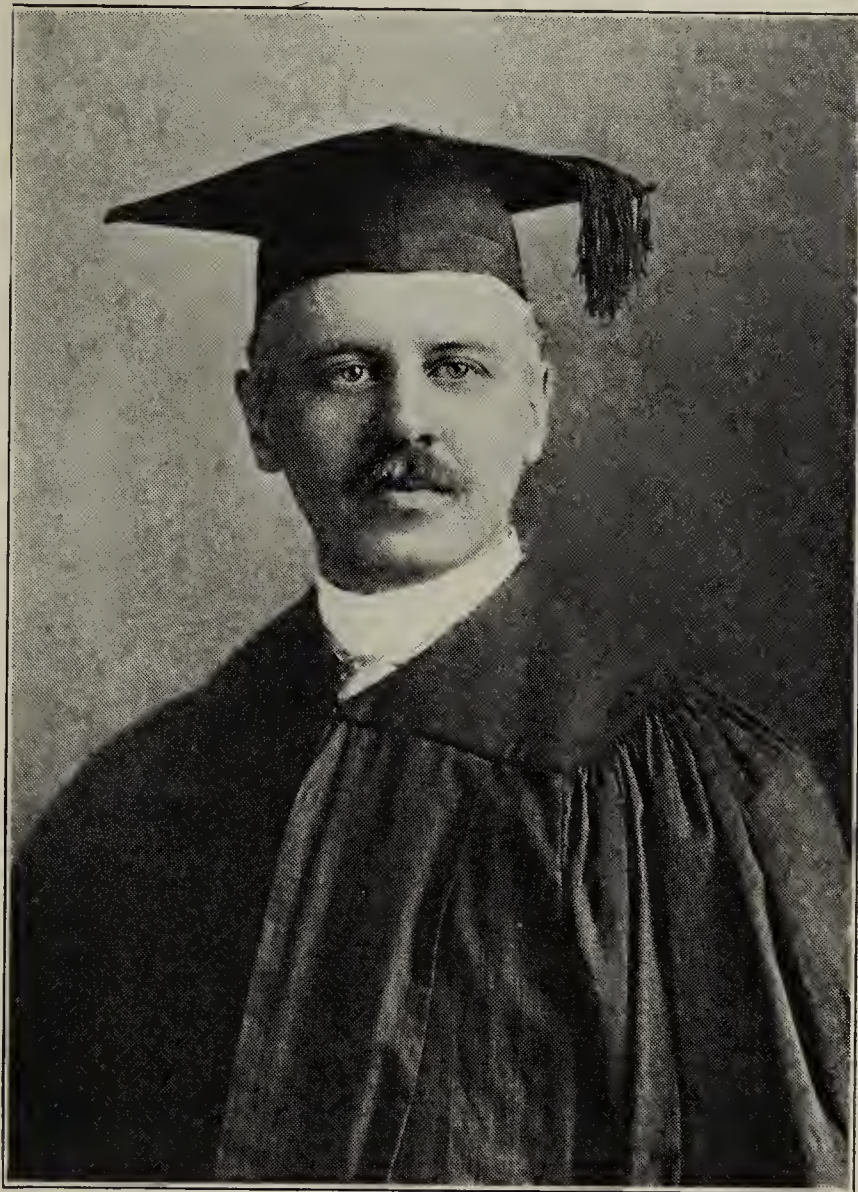
The advantage of placing early fruit upon the market has long been recognized by growers, and no small part of their effort has been expended upon the production of early varieties. The public, keen for fruit which is not yet in season, will always pay a premium for the privilege of consuming the first lots to arrive upon the market, even if the early product is inferior to that arriving later. Once, however, that the first demand is satisfied, there is likely to be a reaction and a consequent slump in prices which will last until the quality becomes normal. Further, if the first consignments are poor in quality, this condition of the market will be protracted. Aside from this, the problem of so regulating the sale of a large crop that there will be a minimum amount of excess or shortage at any time in distributing centers renders it highly advantageous to make the early market bear as much as possible of the burden.

With oranges, the Thanksgiving market constitutes the first outlet for early fruit. The prices then are usually in excess of those realized later and fruit of good quality is unusually scarce at that time. It requires from 12 to 20 days for fruit to reach the eastern market from California, and from 5 to 10 days from Florida. Western fruit must, therefore, be picked early in November and southern fruit

by the middle of the month in order to reach the consumer at Thanksgiving. The quantity of fruit in either section which is in a satisfactory condition at that time either as to quality or appearance is decidedly limited.

While the purchaser of oranges may not recognize yellow color as an invariable indication of maturity, he believes that green color is an indication of immaturity and it would not be possible to dispose of green colored fruit even if the pulp was mature. The temptation has, therefore, been placed before growers to accelerate the yellow coloring of their fruit by artificial methods. The resulting practice of sweating had long been used in curing lemons before its introduction into the orange business, and the arguments which may be valid against this practice in the case of oranges do not apply to lemons, since in the orange the desired quality is sweetness, while in the lemon it is acidity.

The process as carried on in California consists in submitting the fruit to certain conditions of temperature and mois-



MR. E. M. CHACE, Bureau of Chemistry, Department of Agriculture.

ture in an atmosphere filled with the gaseous products resulting from the burning of oil or gas until the skin has assumed a desirable color. The fruit is collected from the groves and placed in lug boxes which hold somewhat less than the ordinary packing boxes. These boxes are stacked in the sweat rooms just as they are brought from the field and before the fruit is culled or graded. Sweat rooms vary in size, varying a capacity of two carloads or less. Heat is generated by means of oil stoves, the number of burners depending upon the size of the room, the character of the insulation, and the ventilation. In some districts where gas is available gas stoves are substituted for oil stoves, with apparently the same degree of success. Humidity is supplied by placing upon these stoves or burners cans of water.

"A study of the process was made by Sievers and True in 1912, the results of which are published in Bureau of Plant Industry Bulletin 232. The temperature and moisture conditions maintained vary greatly with the different packing houses; 85° to 90° F. seems to be the average temperature, although all temperatures from 80° to 100° F. have been found and are advocated. No accurate data of the amount

of moisture in the atmosphere are available as records of this nature are seldom kept in the northern district.

There are some packers who advocate dry sweating; some who claim that the best results are obtained when as small an amount of water as possible is used, others who maintain that the amount should be regulated so that no moisture will condense upon the fruit, and still others who believe in the rule of the more water the better.

The time of sweating varies largely with the condition of the fruit. In the latter part of October or the first of November, during the year 1913, many lots of fruit in the northern district of California were sweated four or five days and still did not assume a satisfactory color. As the season advanced and the fruit treated was in a somewhat more advanced stage of maturity when picked, the amount of time required for satisfactory coloring became less and less, until finally but 24 hours were required for a considerable portion of the crop. It sometimes happens, however, that the late fruit, owing to methods of handling the grove, requires a longer period of treatment than that which was first picked. This is due to the fact that upon the initial picking only the fruit which shows the highest coloring is gathered, while at the second or third picking the trees are stripped and a large proportion of highly immature fruit is mixed in with the riper grades. In some instances such lots are culled in the packing house, and fruit showing a very green color is specially treated or in some instances sent to the cull pile.

Once started, the custom of sweating has grown beyond all reason, resulting in a state law in Florida and a seizure of California fruit by the Department of Agriculture. The latter action resulted in a demand on the part of the growers in northern California for an investigation of the composition of their fruit, with a view to restricting the sweating process to that fruit which has reached a definite stage of maturity. Mr. C. P. Wilson and the writer were sent by the Bureau of Chemistry to Porterville and Riverside, California, to investigate the question, and we now have the results of some two hundred and fifty analyses of oranges from the San Joaquin Valley, and of over three hundred from the southern district.

A greater part of the northern orange district of California is in the San Joaquin Valley and lies wholly within Tulare County. It is about 150 miles north of the city of Los Angeles and equidistant from the coast. For the purpose of collecting samples, the district was divided into eight sub-districts. The territory extending from Plano (at the south) eastward to Globe was considered one district, the region adjacent to the city of Porterville another, while Zante, Strathmore, Lindsay, Exeter, Merryman, Lemon Cove and Naranjo were considered the centers of the remaining districts. These centers lie north of Plano, along the Southern Pacific railroad, in the order named, with the exception of Merryman, Lemon Cove, and Naranjo, which are in the northernmost parts of the district not traversed by this line. The whole region is some forty miles in length, varying in width from a few hundred yards to several miles. It would seem that the best citrus land of the region lies along the foothills extending into the small coves. The groves, however, are by no means confined to these locations, and have been planted in many instances for miles across the flat land of the valley.

Necessarily, in an investigation of this character, where the value of the work depends to a large extent on the number of samples which can be analyzed, only such determinations as could be made accurately in a field laboratory were attempted. These were soluble solids, total sugars as invert sugar, and acidity as citric acid. There is a well-defined opinion among the growers of the northern region that their fruit ripens at a much earlier period than that in southern California, where as a rule the season proper does not begin until after the first of January. In 1913 shipments were made from the northern region during the last week in October, while by the middle of November practically all of the packing houses were running on full time. The results obtained in the laboratory did not by any means justify these early shipments, the changes in composition of the fruit not indicating to any great degree an increase in maturity during early November. For the first week the averages for the whole region showed 11.6% of soluble solids in the juice; 8.2% of total sugar; 1.36% acid, with acid ratios of 8 in the case of solids and 5.8 for sugars. For the week ending December 6, the solids were 11.5%; sugar 8.6%; acid, 1.42%, with ratios of 8.8 and 6.2, respectively, thus showing no increase in soluble solids, but .4 of a per cent in the case of sugar, and an increase of .6% in acidity. Acidity usually decreases as the fruit matures. The ratios in consequence

showed little change. By January 3, solids had increased to 12.7%, sugar to 9.2% and acidity had decreased to 1.2%, with the resulting rising of the acid solids and sugar ratios to 10.8 and 8.1 respectively. During the second month the weekly samples showed a steady improvement from week to week, which is not the case during November, where individual samples as well as weekly averages were decidedly irregular. During the month of January this improvement seems to continue. After the 24th of January, however, work was discontinued at two of the centers from which fruit was being obtained and the results after that date are not comparable with fruit during the previous months. At that time, however, there had been an increase in solids over the first figures given of 1.5%; an increase of 1.6% in sugar; a loss of .2% in acid, with a consequent rising in acid solids and sugar ratios of 1.7 and 1.4, respectively. The average for all of the samples taken in the northern district was:

Solids.	Sugar.	Acid.	Acid Sugar Ratio.	Acid Solids Ratio.
11.29%	8.14%	1.31%	6.4%	8.9%

Our experience would seem to indicate that the color of the fruit, up to a certain point, is not an indication of maturity. In a large number of cases the acid sugar and acid solids ratios shown by oranges with as little as 10% of color would be higher than those in other fruit where 25% of color was shown. There seems to be, however, some little difference where 40% to 50% of color is reached and beyond this point it would seem that color is to a greater degree an indication of maturity. While the acid solids ratios of oranges showing less than 10% of color was slightly above 8, those showing 20% were slightly below that amount and those showing 30% color were practically the same. Oranges showing 50% of color had an average ratio of 8.5; those showing 70% a ratio of 9; at 80% to 95% color the ratio was 9.5, while the average ratio for fruit reaching 100% color was well above 11.

The acid sugar ratios show a like variation, being at 50% slightly over 6, reaching 7 at 80%; 7.2 at 90%; 8.5 at 100%. Of course, with sweated fruit the color is not an indication of maturity, although it may well be said that fruit which upon sweating does not take on a satisfactory orange color in all probability was picked in a more immature state than fruit which satisfactorily colors during the process. Thus, a single sample which after sweating was judged to have but 50% color showed acid solids ratio slightly above 7; while samples showing 80% color reached 7.9; 85% color, a ratio of 8.5; 90% color, 8.8; 100% color, 9.4. The two samples of fruit having 75% color had higher acid ratios than those showing a higher percentage, but this was undoubtedly due to the fact that only a few samples were found developing this color and were probably abnormal. The few samples having 95% color were also abnormal, showing lower ratios than those having 85% and 90% color.

Inside color is also to some degree an evidence of maturity. Oranges in which the pulp may be described as pale yellow had an average ratio of but 7.4, while samples consisting of fruit that averaged a yellow color reached 8.4%. Where the color was described as full yellow the ratio was the same, but where the pulp had assumed a dark yellow tint the ratio had reached 10.7. The percentage of sugar had increased from 7.75 in the first mentioned class to 8.8 in the last, and the acid had fallen from 1.45 in the pale yellow fruit to 1.1 in that showing the deep yellow color.

The taste of the juice possibly is an indication of maturity, although it is almost impossible to gather reliable data in a determination of this kind for after an operator has tasted the first few samples the sense of taste becomes inaccurate and in many cases the further opinions are practically worthless. The difference in individual tastes of course plays a very large part in these determinations. To one person a fruit of decidedly acid characteristics is pleasing, while to others the acidity must be very much lower in order to escape being classed as sour. The amount of sugar present will also largely influence the judgment as to the acidity. Fruit with 10% of sugar in the juice will often escape the designation of sour, with an acidity of 1.5% while other fruit with an acidity of 1.3 would be so classed where the sugar did not run above 7.5 or 8%. After the acidity of juices falls below 1%, the juice will be classed as insipid by persons who favor oranges with an acid character; while with others it may fall as low as .5% and still be pleasing.

A great majority of the samples upon which analyses were made were necessarily secured from fruit in the packing houses, which possibly did not represent the average state of ripeness of fruit in the groves at the same time. In order

to check these samples, fruit was taken from special trees in each region, samples being taken twice each week in four of the eight districts. These samples coincided with those obtained from packing house samples very generally, also indicating no material improvement in the fruit during the first weeks of November. It is quite possible, however, that there were some groves situated in the more favorable parts of the region which could have shipped fruit at times during November which would have arrived upon the eastern market well colored and acceptable as to quality. Nature has, however, apparently created a peculiar situation in the district, for these groves are situated upon the hillside where the danger of frost is very much less than upon the flat lands farther down in the valley, so that the owner of the flat land grove is the one who is in the greatest danger of frost and whose fruit matures latest. It must be said, however, that little if any capital has been expended in this region for frost protection either upon the flat lands or on the hillsides. Aside from the question of frost, the early disposal of this fruit is encouraged by the market conditions, for during November there is less competition from Florida and none from the southern part of the state. Altogether, the region probably produces about 10% of the western oranges. The shipments last year were approximately 4,500 cars in the San Joaquin Valley, with perhaps between 400 and 500 cars from the Sacramento Valley groves in Butte County. Not less than 50% nor more than 75% of the entire output was sweated.

Before adopting even tentative standards for maturity, several points must be considered. It would seem that in order to be able to regulate this practice under the Food and Drugs Act it must be attacked on one of two grounds—first, that the coloring by artificial means is a concealment of inferiority of the fruit, in which case fruit which was unsweated but which had the same composition could be sold if it had naturally attained sufficient color to satisfy the purchaser. In this case the public would be as thoroughly deceived but the deception would not have been practiced by the packer. As a matter of fact, last year, fruit from the southern part of California, owing to its early coloring, could have been sent to the market without sweating and in a much more immature condition than the sweated product from the north.

The second point of attack would have to be on the ground that the product was misbranded in that it was sold as mature fruit when as a matter of fact it was in reality immature. If action should be taken on this ground a very wide field of investigation would be open, for there are few if any of the fruits marketed which are not picked in a more or less immature condition. Of course the status of some of them is entirely different as it is a well recognized fact in the case of the banana, for instance, that it is fully as good if not better when matured off the tree than upon it. In several packing houses which were under investigation the statement was made that all of the fruit going through the house was sweated, whether or not it had the desired color upon picking, the reason given being that a more uniform tint was obtained by thus treating the fruit and that its physical condition was so changed that a much firmer pack could be attained; also that the sweating process tended rapidly to bring out the defects which otherwise would not have been discovered in the packing house but only after arrival upon the eastern market, entailing a considerably lower price than was warranted by the condition of the whole shipment.

It is not the purpose to recommend here a standard of maturity for California fruit—merely to place before you existing facts and calling your attention to the fact that these conditions have largely been brought about by a few unrestrained growers who have been continually forcing the market for early fruit against the better judgment of the community as a whole, and from year to year the practice has increased owing to the excessive prices received for the first few cars, until at the present time the greater part of the producers find themselves committed to a practice which they realize will be the ruin of their industry if not soon restricted, but which without State or Federal aid they are powerless to abate.

Bureau of Chemistry, Department of Agriculture, Washington, D. C.

Pres. Chittick: Is there any discussion on this subject? Then I will ask if there are any papers present that have not been presented.

Dr. L. F. Kebler: I would like to go back and discuss Mr. Moat's paper. According to my understand-

ing of it, it is to the effect that they have a law in Vermont which requires milk to contain not more than 100,000 bacteria per cc.

Mr. C. P. Moat: In Burlington, that is true.

Dr. L. F. Kebler: How about the smaller settlements?

Mr. C. P. Moat: What I referred to was a city ordinance. We have no such standard in the state itself, and that is because we feel the milks are shipped from a distance and they will not be judged under the same conditions. I brought in that Burlington ordinance to show that they were strict there. In our city work we do bacteriological work as well as make the physical and chemical tests and they harmonize very well.

Dr. L. F. Kebler: The more dirt, the more bacteria?

Mr. C. P. Moat: Yes.

Pres. Chittick: We will pass on to our next subject, the round table discussion. This is a "free for all" and any subject may be discussed here.

Mr. J. S. Abbott: In the discussion of the sweating of oranges the other day, talking about coloring them artificially, I believe they proceeded on the basis that that makes them look like ripe oranges. When I was down in Florida not long ago I was told that there are oranges that are ripe when they are still green. I wondered if there was anything like that in California or not.

Mr. L. M. Tolman: I know a little about California oranges. The navel orange is not ripe until it is yellow. But there are some varieties which are green because they ripen in the summer time. In the navel oranges, though, the color is the criterion. Mr. Rose mentioned those other oranges, which are entirely different in character, and Mr. Chace came to the conclusion, I think, that you had to take the variety of the orange into consideration, and work on each variety because they are different in sugar and in acid content and practically everything—each variety. What applies to one orange doesn't necessarily apply to another.

Mr. J. S. Abbott: How would that figure in court as evidence? Suppose you were trying to make it appear that some oranges had been sweated to make them yellow and appear like ripe oranges and suppose the other side brought up the fact that there are a lot of oranges that are ripe and still are green. If that evidence should be brought up that way, would it have any effect? In other words, won't we have to get entirely away from that color proposition before we are able to handle the question of oranges?

Mr. L. M. Tolman: That question came up in Chicago and we showed the court that they were navel oranges and when you did sweat a navel orange it made it look like it was ripe when it was not. That wouldn't apply to some of those other varieties of oranges. You couldn't necessarily hold that would apply to any oranges. It doesn't apply to bananas, either and so we have to limit ourselves absolutely to the study of the particular variety of fruit under consideration. But in the case of navel oranges the artificial coloring does make them appear like ripe oranges. Everybody admits that much but I don't think we can broaden out very far on that general principle or apply it to but a very limited line of fruit we have under consideration.

Mr. J. S. Abbott: That is just what I did not know—whether there were enough of these peculiar oranges to make it be considered a general condition

in the orange business. I am frank to say that I always had the impression that a yellow orange was ripe and if they sweated oranges it would have deceived me all right and I supposed it would deceive the majority of people but there may be a large number of people that understand that green rind orange. But that is a thing I did not know until I got down to Florida. But after all, it appears to me that we might work out a standard of ripeness that would be more efficient as evidence in court than color. For one reason, any orange will get more or less sweating by the ordinary natural packing methods, shipping methods.

That also brings up the question of making a standard on oranges—whose business is it to make the standard? Is it the food official's business or the orange growers' business. In Mr. Rose's bulletin he says he thinks it is the trade's business, the business of the orange growers, to make the standard and not his as a state official. It is not necessary here to go into a discussion of that phase of it but it looks like we are going to have to work out a standard of some kind before we can handle that orange business very well in court.

Dr. Chas. Caspari: I would like to know if anyone here is familiar with the Jamaica orange? It is green when it is ripe. I have eaten a number of them. At first I refused to eat them because I thought they certainly couldn't be fit to eat. But I tried one and it was sweet and ripe but the color was absolutely green—greener than any other orange I have ever seen from any other location and if that is imported into this country to any extent it would play an important factor in the consideration of color.

I think the Florida legislature has taken a step forward in the right direction and the acidity would be a better standard than color, and while that is only a state provision at present, I think perhaps it would lead later on to the adoption of a standard of that kind by the federal government and I hope it will.

We people living up here and not cultivating oranges ourselves at all, have to depend almost entirely upon the statements from Southern States where they are familiar with the facts. I don't think we ought to lay too much stress on the simple fact of the color of an orange and whether it is possible to differentiate between a naturally ripe orange and a sweated orange.

Mr. R. E. Rose: This address was intended for this section but it was switched over to the other section. My address is not a scientific one. It is only the conclusions drawn on the scientific work done by the laboratory of the State University and by two collaborating commercial laboratories of repute.

This question of the sweating of oranges has been a very acute one in the orange growing states, particularly since the business has reached the large volume it now has. The crop of 1912-13 sold for \$30,000,000 in Florida; while in California it sold for a third or half more than ours. A few years ago Florida exceeded California in the production of oranges but the frost of '95 wiped us almost out of existence, though now we have gotten back to a position where we are rated second.

The question of immature citrus fruits has been a very acute one, as I say, because we have certain varieties that are ripe in October and November and while they are perfectly ripe and a desirable fruit in every way, their color is green. The fact is, when

they do become yellow they are not fit to eat. That we call the early orange.

We have other oranges that bloom in February or March and they carry their fruit until the following July a year. They are just ripening now. They are unfit to eat until July. We have oranges ripening in the state of Florida every day in the year. The majority ripen in November, December and January. Those are our principal shipping months. The habit formed by the speculators was to ship a few boxes or a carload of these very early oranges, perfectly green in color, in September, October or November, for which they obtain very good prices and establish a price for these oranges. The following week they will ship several carloads of our ordinary seeding oranges that are not mature and the consequence is that the market would immediately slump. This was done for the purpose of causing that slump.

Now oranges will not mature on the road. The idea of a "sweated" orange is rather a misnomer. I believe occasionally they are sweated to a certain degree by putting them in a close room. But if you put oranges in a box and put that box into a car and it is a week on the way to its destination, they will arrive there in a bright condition—just like a lemon. The lemons are picked before they are mature but they are sweated and colored by this process.

The growers themselves seldom ship an immature orange. The brokers and speculators do ship these green oranges to the detriment of the business and of the consumer. A man who buys a bag full of beautifully colored oranges and finds that they are as sour as a lemon and utterly unfit for consumption doesn't want any more oranges for five or six weeks. He has had all the oranges he wants.

The United States Government recognized this fact when it prohibited in Food Inspection Decision 133 the sale of immature citrus fruit. But they had no standard by which to guide themselves as to when citrus fruit was immature, therefore they made no standard. They did not define what "immature" was. The Florida legislature followed suit immediately. We had been fighting that practice for a number of years. We passed what we termed the Florida Immature Citrus Fruit Law, with no standard. The Florida legislature was in the same condition that the United States government was. They didn't know what a ripe orange was—nor did I know, or anybody else.

After one season's experience with opinions by experts—so-called—by orange growers, and after several prosecutions which failed on account of the different testimony presented by different men as to the maturity of the fruit, a convention was called of the orange-growing industry and it was very largely attended. Three-fourths of the growers in the state of Florida were represented. And, after a discussion of the whole subject, a commission was appointed to investigate and report. That Commission consisted of the director of the Experiment Station at Gainesville, Fla., Prof. P. H. Rolfs, a man particularly versed in orange growing; the president of the Florida Horticultural Society, Prof. Hume, and the Horticultural Society is a citrus fruit growers' association representing 1500 growers; Dr. Flint, Professor of Chemistry of the State University; Prof. Collison, chemist of the Florida Agricultural Experiment Station, and myself.

We labored over the matter for some time and finally reported back to this convention, recommending an acidity test, or chemical test. That is a test that is

applied very similarly to the cream and milk test. It is very simple; it can be applied by any one who is not color blind and who has had a few lessons in handling the material. All he needs is a few alkaline tablets with a proper indicator and a lemon squeezer. And they adopted this standard.

The question arose as to the legality of that standard and we were met with objections from men who desired to ship immature fruit, but in that instance we won out because we had the authority and approval of the orange grocers' convention, who I claim are the proper ones to make the standard. As you all know, standards fixed by the trade are adopted by the legislature. The convention adopted the recommendations we made.

Those tests were made by chemists in the State and by other collaborating chemists of repute, Wiley and Co. and Genth & Co. and they made a careful study of the citrus fruit from September until January. The trees were carefully selected by responsible men. The samples were sent in regularly and the analyses were made and as stated in this report, the conditions and varieties and the date of plucking were considered. The conclusion we arrived at was that an orange containing 1.25% or more of acid, calculated as citric acid, should be considered as immature.

An examination was made along the lines of the ratio of the acid to the sugar and as you will see by examining the diagram published in this report, the decrease in acid and increase in sugar is very uniform up to full maturity, when they go parallel.

That report was recommended to the legislature as a standard by these various organizations. They recommended it through a bill prepared under their direction by myself. The legislature appointed a special committee of nine and after consultation and submitting the matter to a large number of orange growers, they passed our present citrus fruit standard law, a copy of which is here in my printed address.

In the meantime the Supreme Court had passed upon our original law and had upheld it. But certain compromises had to be made. They fixed it at 1.30; 1.30 will give a shipping orange but it is not thoroughly mature. It is not really ripe at much more than 1%, sometimes, .51%, particularly this green orange that I speak of. The peculiar excellence of that orange is on account of the small amount of acidity, with a considerable bouquet. That orange is not desirable after the latter part of the season when the true orange comes into the market.

In my address yesterday, which I delivered before the main convention, and of which there are still a number of copies in the other room, I go rather deeply in the problem in discussing the report, and I have brought copies of the report with me also. That report is indexed and shows the decisions of the court on the matter and the results of our work. I have also reports of other chemical laboratories along the same line, which I would be glad to send to any one who asks for them but they are so co-ordinate and the conclusions reached were so uniform with our own that I did not think it necessary to bring them along with me. It would have made a bulky package, to bring out this bulletin of ours issued April 13th has the details of the work in a condensed form and I think covers it pretty thoroughly.

One of the principal objections by the shippers to Florida establishing a standard of excellence was that we would then have to meet the competition of sweat-

ed oranges from other sections of the country. California has a commercial standard although she has no legal standard. I have seen an article by a California authority in which he states they are seriously considering the adoption of the Florida standard. Unfortunately our Florida standard has a proviso in it, which was very unfortunate but was necessary as a compromise. All three laws are here and I think you will find them worth reading. But that law crippled us because it was impossible to know what the color of the orange was on the tree before the inspector saw them. If they were put in a warm bin or a warm room and kept there a question arose as to when they were gathered. That gave us some difficulty. The suggestion now is to amend the law at the next session of the legislature and I think that proviso will be stricken out. A law like this fixes a standard in one sentence and destroys it in the next. And the United States federal authorities have forbidden the shipment in interstate commerce of immature oranges but they do not say what an immature orange is and it is left entirely to the discretion of the inspector, to his personal knowledge of the matter or his prejudices or interests. In Florida now we have fixed here a standard which is fair to all; it does no injustice to the late orange and prevents people from being imposed upon by having immature oranges foisted off upon them as ripe oranges.

My suggestion is to have our Joint Standards Committee consider this matter and recommend it for adoption if they see fit.

Mr. R. E. Doolittle: Have you any data on the California fruit, Dr. Rose?

Dr. R. E. Rose: Yes, that has been published in the various journals. They made quite a study of it in California before we did and the conclusion they reached was that a mature orange had a ratio of 1 of acid to 8 of sugar. We found it was 1 to 7. That an orange of 1 to 8 was a little more mature.

If an orange should be held up during shipment it would be too mature and 1.30% of acid is a better standard. There are so very many different varieties of oranges that, as I said in my address yesterday, you cannot accept date, variety or coloring as a standard but you can accept 1.30% of acid maximum for a mature orange.

Mr. J. S. Abbott: I would suggest that we should bring this matter before the Standards Committee but I doubt if they can work it out and get action upon it before the next season comes around. It would be very desirable to finish it up before then but I don't know whether it is possible to do it or not. Dr. Rose has some fine data there and if there is also some from the California territory and they do not conflict, we possibly could work out a standard before the next season begins.

Dr. R. E. Rose: I am satisfied if it can be put before the proper people you can come to a conclusion. One of our citrus fruit growers just before I left showed me a copy of an article read recently before a convention of the citrus fruit growers' convention in California and he commended the Florida work but pointed out the detriment to the work caused by the proviso in the Florida law. We had some correspondence and I called his attention to all the facts in the case. I think the various citrus fruit growers in California are heartily in sympathy with the movement. I cannot speak for Texas. Texas has not yet gotten

into that position where she has so many oranges as to feel the situation as strongly as some of the rest of us do. She will in a short time be a large orange-growing section, I am sure. Her business is increasing by wonderful bounds now. It increased over 22% in the last year in our state. We shipped 8,000,000 in 1913—while California is 30% more than we are. We come in competition with the Cuban orange, the Porto Rican and with the Mediterranean oranges and all of the Mediterranean oranges are gathered green and they color on the road. The orange is more like a pear. It doesn't improve in quality at all after plucking.

Chairman Chittick: If there is no objection I would like to have two or three announcements made at this time. The first is by Dr. Taylor of Louisiana.

Mr. Geo. B. Taylor: The president of the Louisiana Section of the American Chemical Society asked me to announce to this section that the spring meeting of the American Chemical Society will be held in New Orleans, April 1-3, inclusive. This is an especially fine time for meeting in New Orleans, as we always have delightful weather during that time. We are already making some preparations to entertain the society, and Mr. Parsons thinks we shall have 350 members present at that time. We sincerely hope that all of the members of the society here present will make a special effort to come to New Orleans at that time; and as New Orleans has a high standard of hospitality to maintain, I think we shall be able to show you a good time.

Chairman Chittick: Tomorrow morning, immediately following the morning session, the photographer wishes to take a picture of all those in attendance at the convention and we want everybody to be here in front of the building immediately following the morning session.

Tomorrow afternoon at 4 o'clock an automobile ride is to be given to the delegates. There will be forty machines, enough to take the entire organization.

Is there anything else to take up?

Mr. L. M. Tolman: It seems to me it might be well in this Round Table to have the various members bring up anything new in the way of adulteration in foods they have come in contact with in the past year. I just had one or two things come up recently that I had never heard of before. One was a form of adulteration, that, while it had been practiced before to some extent, it was not in exactly the same way that this was and probably most everybody here has come across something new in the way of new adulterations in food products they have had to deal with in the past year that presents something new that would be of general interest.

One of the things I have in mind was a recent lot of edible gelatines which were mixed with varying amounts of sugar, from 5 to 25% of sugar, depending on the price, and also mixed with bicarbonate of soda. The bicarbonate of soda was used for the purpose of allowing a very low grade of gelatine to be used in the manufacture of ice cream, because of its propensity to take up a large amount of air to form a large volume of ice cream and they were able to sell this low grade of gelatine with a very low jelly strength for the manufacture of ice cream and it apparently gave the ice cream manufacturers the results which they were looking for, which is to get as large a volume of ice cream with the use of as little material as possible.

I might say just how we happened to get at this was simply by putting together a series of these sieves,

from 80 to 100 mesh. Our idea was to separate the mixture of gelatin and glue on the possibility of its being ground to different degrees of fineness. But we found in the bottom sieve a white powder which was practically bicarbonate of soda and sugar with a certain amount of fine gelatine in it. We finally determined the sugar in the gelatine by extracting with 70% alcohol. It is difficult to separate the sugar in gelatine by any other means because of the swelling that takes place. But by using 70% alcohol you have practically a complete separation.

The other thing I wanted to speak about was something an inspector came across out in Arkansas. He found that dried apples were being soaked with a solution of benzoate of soda. The dealers out there used 2,000 lbs. of dried apples with 400 lbs. of water in which was dissolved a certain amount of benzoate of soda, and this was allowed to soak over night and that 400 pounds of water were taken up and the benzoate of soda was sufficient to prevent fermentation taking place and they were afterwards packed with 35-38% water. That is a localized industry in Arkansas. All the manufacturers are doing the same thing and shipping these dried apples with an addition of 20% of water.

Chairman Chittick: That is of value to us all. Is there any one else who can give any experience in his locality? Are there any other matters to come before us?

Mr. R. E. Doolittle: I was not here when the paper on arsenic and lead in baking powders was read but I think that is a matter, or rather the presence of small amounts of heavy metals such as arsenic, copper, lead, etc., in other foods as well as baking powders, which should be given greater attention by food analysts. There has been considerable work done in connection with the analytical methods for the determination of these substances. I listened recently to a very interesting article by Dr. Smith at the meeting of the manufacturers of flavoring extract in which he spoke of the occurrence of copper in vanilla extract as a result of the manufacture of the extract in unlined percolators. I think this is a matter that should be given more attention than has been given it in the past.

Chairman Chittick: Anything else? I wish we could have had Dr. Bigelow here to discuss his paper read this morning on swelled canned goods. We are getting a lot of that in our part of the country. It seems we have stores that make a specialty of taking up this class of goods and making special sales of them. Nearly everything in the store displayed on the bargain counters is composed of goods of this character—swelled goods. That kind of stuff is being bought up at these cheap prices in this manner and we are up against it to know just how to enforce the law in regard to it. Where it is a case of decomposition and it is easy to see, we go after it but so many times there is just a little fermentation and I have been a little slow in starting anything, wondering if the fermentation could come under "decomposition" within the meaning of the law. Can you go into court on the physical condition of the can without any chemical or bacteriological data back of it?

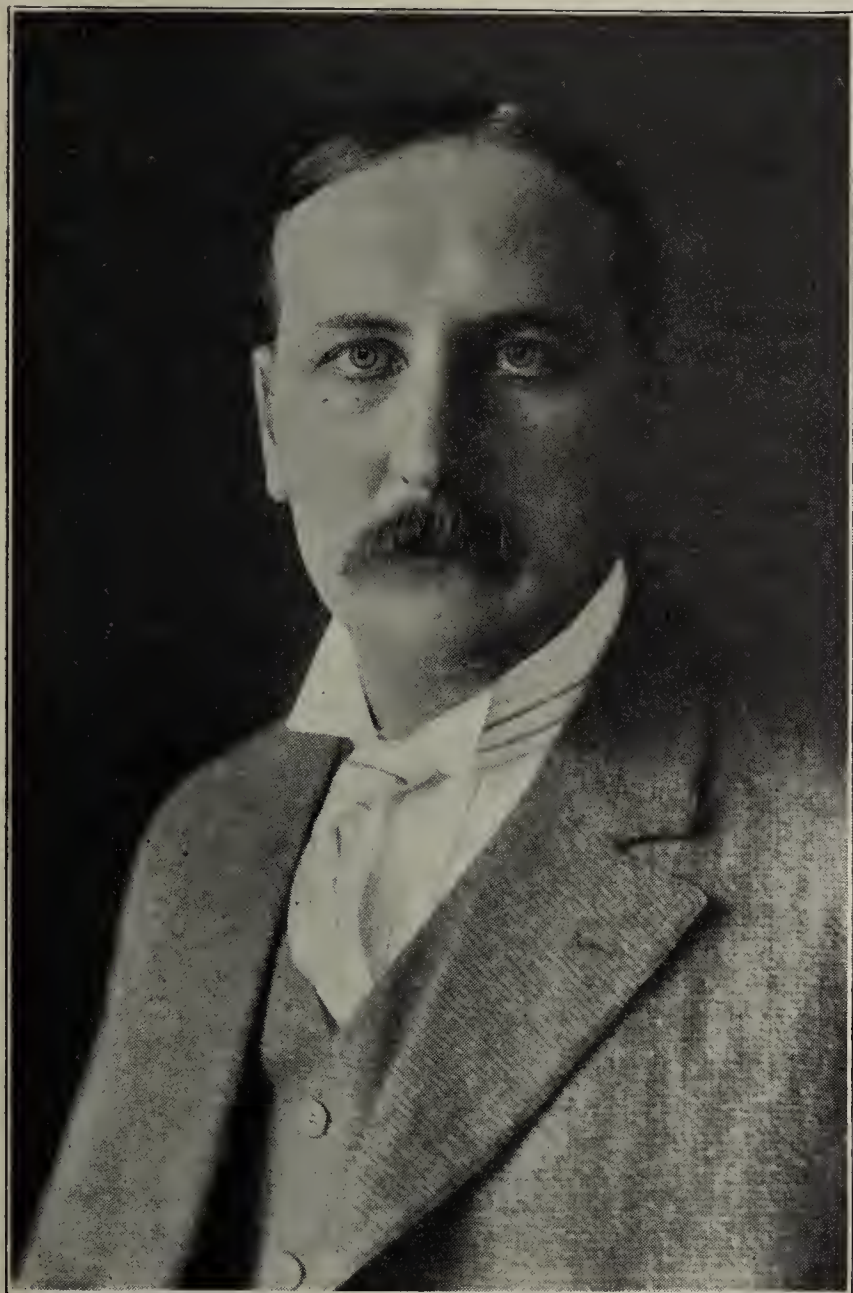
Well, if there is nothing else we will pass on.

Mr. H. C. Lythgoe: I was going to say in regard to decomposition, I think it is advisable to have some chemical data in addition to the appearance of the sample in question. In our cases in Massachusetts that involve protein decomposition I use the Folin method

for the determination of ammonia in food products in the samples in which we get less than half a per cent of nitrogen as ammonia, we call good and those containing more than that we call decomposed.

Invariably in all cases of adulteration on decomposed food, the court has asked for chemical data in addition to the appearance and odor of the substance.

Dr. Geo. B. Taylor: Is there anything published on that method you spoke of, Mr. Lythgoe?



MR. H. C. LYTTHGOE of Massachusetts.

Mr. H. C. Lythgoe: I have that in the Annual Report now in press. It is the method we use for eggs. Folin devised it for another purpose but it is applicable to food products. It is also printed in the Journal of Biological Chemistry, volume 11, page 493. The Folin method as we use it I can give you as follows:

Weigh a five gram sample of well chopped meat into a cylinder about 11 inches tall and $1\frac{1}{4}$ inches in diameter, add 10 cc. of water, a few drops of saturated solution of potassium oxalate, 5 cc. of a saturated solution of sodium carbonate and a little mineral oil, the latter for the purpose of preventing frothing. Close the tube with a rubber stopper carrying two tubes, one of which goes to the bottom of the cylinder; the other tube should be a distillation trap bulb, the outer end of which is placed in a 100 cc. flask about half full of water containing 2 cc. of tenth normal acid. A current of ammonia free air is now blown through the apparatus, the length of time depending upon the

intensity of the blast. We usually run this from two to three hours, depending on the number of samples being run simultaneously. After the ammonia is all distilled over, the flasks are removed from the apparatus and treated with 5 cc. of Nessler's solution previously diluted with 25 cc. of water. By diluting this solution before adding to the distillate, there is no danger of clouding. The Nesslerized solutions are then compared in a colorimeter with a standard solution of ammonium sulphate Nesslerized in a similar manner. The standard solution should be made up, containing one milligram of nitrogen in 100 cc. In addition to the determination of ammonia we make a Kjeldahl nitrogen determination upon another sample of the same material, and by dividing the per cent of ammonia by the per cent of nitrogen, expressing the results in per cent, we obtain a figure which is independent of the amount of fat or substances other than nitrogenous material in the sample. Those samples which we have found containing less than half a per cent of nitrogen as ammonia, we have called undecomposed, and those containing more than half a per cent of nitrogen as ammonia, we have declared to be decomposed.

Chairman Chittick: Any other matters to be brought up? If not, the next thing on our program is the annual election of officers. We had probably better have the secretary tell us what our by-laws in the section are.

Mr. F. L. Shannon: Your secretary doesn't know.

Chairman Chittick: The election is by ballot and it is a question whether you want to nominate from the floor or by ballot. I will entertain any motion as to which way you wish to proceed to elect your president, vice-president and secretary for the ensuing year.

Mr. F. L. Shannon: I don't know, but it seems to me the way we elected them last year at Mobile was to take a ballot and out of the three who received the most votes the President was elected.

Mr. Geo. B. Taylor: I would like to move that Mr. Chittick be nominated for president and Mr. Shannon for secretary and that no other nominations be made.

Chairman Chittick: I would rather you would do it some other way. In our main convention we have the election of a president for just one term and I think it would be a lot better in our section meetings if we would do the same thing. I think it adds a great deal to the meeting to have a new president come in every year. I appreciate, however, that you have nominated me for president again but I would rather have this other method carried out. I have been honored one term and I appreciate it and I am ready now to have some one else have it.

Mr. L. M. Tolman: I move we vote by ballot and the two highest be nominated for president.

Motion seconded.

Chairman Chittick: It has been moved and seconded that ballots be passed and the one receiving the most ballots be nominated for president.

Mr. L. M. Tolman: That the two highest be then voted for.

Dr. H. B. Stone: Who is eligible for voting?

Chairman Chittick: Any official chemist is eligible for voting, and every official chemist is entitled to hold office, as I understand it. You have heard the motion. All in favor say aye; those opposed, no. The motion is adopted. I appoint Mr. Stone and Mr. Tolman as tellers. Put any name down you want for

president, vice-president and secretary—that will save time.

Mr. L. M. Tolman: Mr. Doolittle has 4 ballots; Mr. Chittick and Tolman are tied with ballots. For vice-president, Mr. Lythgoe has 3 and Mr. Doolittle and Mr. Stone have two. In the case of secretary, Mr. Shannon has 10 votes and Mr. Taylor has 2. I respectfully retire and I would suggest that the secretary of the section cast a ballot for Mr. Doolittle as president.

Motion seconded.

Chairman Chittick: It has been moved and seconded that the secretary cast a ballot for Mr. Doolittle as president. Carried. Mr. Shannon will cast the ballot.

Mr. F. L. Shannon: It gives me very great pleas-



MR. R. E. DOOLITTLE of New York.

ure to cast this ballot for Mr. Doolittle as president of Section B for the coming year.

Dr. H. B. Stone: To hurry matters along, I would make the same motion in favor of Mr. Lythgoe as vice-president.

Chairman Chittick: All those in favor, say aye; those opposed, no. Mr. Lythgoe is our next vice-president and Mr. Shannon is secretary.

The following officers were elected for the ensuing year:

President: Mr. R. E. Doolittle, of New York.

Vice-president: Mr. H. C. Lythgoe, of Massachusetts.

Secretary: Mr. F. L. Shannon, of Michigan.

Adjourned.

KAFFEE HAG.

Kaffee Hag was introduced to the Eighteenth Session of the American Association of Food, Dairy and Drug Officials by D. M. Dunn, M. D., who has charge of the scientific propaganda department for the Kaffee Hag Corporation. This practically caffeineless coffee was on exhibition, with supplementary literature, in the smoking room, adjoining the Council chamber of the City Hall, and attracted considerable interest.

The fact that the caffeine elimination in no way affected the aroma or flavor of the aromatic beverage was a pleasant surprise to many of the inspectors; they lost their indifferent expressions when they discovered that it was not a devitalized product, shorn of its chief attraction as well as its injurious drug—caffeine.

As a result of years of careful experiments, leading coffee merchants and chemists of Bremen, Germany, succeeded in developing a process by which the caffeine could be eliminated without effecting in any way the other component parts, such as tannic acid, sugar volatile, oils, etc.

The drug caffeine is removed from the raw coffee beans while they are subjected to superheated steam, in which state the aromatic oils cannot be released.

Kaffee Hag is a blend of the choicest coffee grown and is packed in one of the most modern plants in Europe. From the time the coffee is picked at the plantation, it is not touched by human hands until the sealed package is opened for consumption.

Kindly concentrate your scientific minds on the following laboratory findings, which check up the statement that 95 per cent of the caffeine has been removed from the Kaffee Hag:

June 15, 1914.—Lederle Laboratory: "You will be perfectly safe in claiming that 95 per cent of the caffeine has been removed; the percentage is practically insignificant and is about as thorough a removal of caffeine as we have ever observed."

June 14, 1914.—Analyses by the Scientific Station for Pure Products, under the direction of Doctor Wilcox, gave the same satisfactory confirmation.

In addition to the above, the following standard laboratories are turning in weekly analyses of Kaffee Hag to confirm its claims:

Official Testing Laboratory, New York City.

Laboratory of the Public Health Bureau, New York City, Dr. North.

Ferguson Laboratory, New York City.

Dr. Charles H. La Wall, State Chemist for Pennsylvania.

Commercial Laboratory of the Massachusetts State Normal School, Dr. Allyn.

Jefferson Medical College, Prof. Hawth, Pennsylvania.

In this day, when the significance of high blood pressure is being so carefully studied and the almost invariable instructions of the physician is to stop coffee, because of the chronic stimulation of caffeine, Kaffee Hag will prove a most delightful substitute to the patient as well as the physician and the general public.

CHEMICAL SOCIETY MEETING POSTPONED.

Announcement has been made by Chas. L. Parsons, Secretary of the American Chemical Society, that the meeting which was scheduled to be held in Montreal has been indefinitely postponed. This action is taken on account of the European war.

Official Proceedings

Manufacturers' Day, Friday, July, 17, 1914

We will now go through our program for Manufacturers' Day, commencing with the first one. I will make this explanation: You will notice that a number of manufacturers are going to speak on one subject: "What Should Be the Relation Between Food Manufacturers and Food Commissioners?" They are requested to speak upon this subject because it was felt that it was one of the very greatest importance and interest. I trust that the commissioners will pay the very closest attention.

We will now hear from Mr. Louis Runkel of the American Specialty Manufacturers' Association. Is Mr. Runkel or his representative present?

Mr. McCormick: I think he may be here tomorrow.

President Wallis: Very well. Then we will let that go over and hear from Mr. Charles F. Simes, president of the National Confectioners' Association of the United States.

WHAT SHOULD BE THE RELATION BETWEEN FOOD MANUFACTURERS AND FOOD COMMISSIONERS.

By CHARLES F. SIMES,

President National Confectioners' Association of the
United States.

Mr. President and Commissioners:—

As President of the National Confectioners' Association of the United States, an Association that for more than a quarter of a century has steadfastly fought for and maintained the purity of candy, and that has, on its own initiative, succeeded in placing Pure Candy Laws on the Statute Books of practically every state in the Union, it gives me great pleasure to meet you, gentlemen, who are directly concerned with the enforcement of those laws and with the continued maintenance of the purity of candy.

In answer to the question as to what should be the relation between the food manufacturers and food commissioners, it occurs to me that, as President of our Association, there is but one answer to be made, and it is that that relation should be one of absolute confidence. I feel that the organization I represent has well merited the right to come here and ask you, gentlemen, to repose confidence in us. Our relations with the food officials have always been for the most part of the most friendly nature. You have always dealt kindly with us, and we want you to feel that we appreciate the same. But there have been some little difficulties that have arisen from time to time and that have caused us much annoyance and much regret, and it is those matters that have prompted me to come here today and ask for your confidence. I feel sure that had we enjoyed your confidence in the past to the full extent to which we feel entitled, that the prosecutions against confectioners would have been fewer by far than what they have been, even though they have not been many. A lack of confidence somewhere along the line has injured us—as it must always injure any industry in which the food officials of the country do not repose full confidence.

We have had our little troubles, as I said before, and my object in coming here is to endeavor to establish such relations with you that those troubles will be entirely things of the past and that in the future your officials and our Association may so work together that you can point to the confectionery industry as the pride of every good food commissioner's heart and a splendid example of what a food manufacturing industry ought to be.

My idea about the relation between the food manufacturer and the food commissioners is, that it should be established

on such basis that there will be no injury done to any food manufacturer that can possibly be avoided, and no prosecutions started until it becomes necessary to prosecute as a last resort. I would not have you understand that I do not realize your duty to enforce your laws, or that I would have you withhold the enforcement of the law against any wilful violator of the same; but what I mean is, that on the many questions that arise from time to time with respect to the meaning of the law, or the legality of a given practice, there should be a mutual exchange of ideas and a careful consid-



MR. C. F. SIMES.

eration of all points involved before the matter is brought to the courts; I will even go further and say, before such a matter is brought to the attention of the public; because, after all, it is publicity of an accusation which works the greatest injury.

The manufacturing confectioners of the country have striven hard to maintain the purity of candy. We believe that you, gentlemen, give us full credit for the same. But occasionally things come up which do not meet with your approval, and it is of these matters that I want to speak.

Many years ago, before this Association was formed, there was a real adulteration of confectionery going on in the coun-

try. There were no food laws—or very few—to prohibit such practices, and few, if any, food officials to enforce such laws. Our Association was formed for the purpose of wiping out that evil. It did wipe it out so quickly and completely and held the ground it gained so firmly, that for a quarter of a century the purity of candy has been maintained to such a high degree that you may search the records in vain for evidence of real adulteration in the same. But within the last two or three years and with the aid of advanced science, it is with regret, I say, that some things were discovered in connection with confectionery that in the opinion of some officials were violations of the law. As a result numerous prosecutions were started against confectioners and I know that more or less injustice was done. It was unfortunate, because some of the very men who have devoted practically their lifetime to maintaining the purity of candy were involved in some of the prosecutions. So far as guilt is concerned, in the true sense of the word "guilt," these men were as innocent as you or I, but they were technically guilty, through no fault of theirs, of the violation of the law, and their names injured accordingly. It is such matters as these that I would seek to avoid, and if you food officials will only repose confidence in our Association, I assure you that you will always find us willing to meet you more than half way in any matter that may arise. There is no ambition that I have that is greater than the one to establish such a relation with you, that in the future such a thing as prosecution of a confectioner will be unheard of. I am sure that this is not holding out a false hope, but that it is a thing entirely within the realms of possibility.

We have a well-formed organization that embraces within its membership practically all of the large manufacturing confectioners in the United States. These members look to us for advice, and I am glad to say that they follow our advice. When a question of importance arises and a circular is sent out from our Association on the subject, our members follow whatever advice we give them; we are thus in a position to control the practices of the industry to a very large extent. Unfortunately, however, there are some confectioners who do not belong to our fold, but in some respects we can control even those. We do not try to coerce our members, nor have we tried to compel them to do what we would like to have them do, but when our Association takes a stand on a matter our members know that it has been done only after the most careful consideration and that the Association will adhere to that position. Our members know, further, that if they go contrary to the advice of our Association, they do so on their own responsibility. As a result there are but few members who ever act without advice on matters of importance.

If we could only get you food officials to come to the officers of our Association and complain to us of things of which you do not approve, I am sure you would be gratified at the hearty welcome you would receive and the way in which we would consider the matter with you and work to adjust it to your satisfaction.

Our object is, in a sense, the same as yours: that is, to maintain the purity of candy. We go about it in one way and you in another. I do not wish to under-rate the good work that you have done, but I do wish to say that we, also, have accomplished a world of good in our own way. Why can't we have a little more confidence in one another? Why can't we confer about matters of importance? Why can't we confer about laws to be enacted? There is only one reason in the world, and that is because of a lack of confidence. This lack of confidence should not exist.

The confectionery industry has its problems to solve just the same as any other great manufacturing industry. We are making progress with rapid strides. Sometimes practices may exist of which you do not exactly approve, but it may be that it is impossible for our industry to change such practices until we find a more practical way of producing the product involved. When we are confronted with manufacturing difficulties, we would like to have you food officials, and particularly your chemists, help us solve such problems, and not condemn us on matters that it is almost impossible for us to control. As I said before we, as an industry, have very little complaint to make of the treatment we have received at your hands, but we would like to cement even closer the good friendship that has existed. When you discover anything in candy that does not meet with your approval, just let us know what it is. Give the officers of our Association the chance to straighten it out. It may be a matter that cannot be straightened out in a day or a week—or a month; if such be the case take that fact into consideration and not

only give us a reasonable time, but give us the advantage of your good advice as to how to solve the difficulty, whatever it may be.

Then again, we are constantly making progress. New methods of manufacture are employed, and new products are coming out from time to time. It may be that a new product made by a new process, or containing certain new ingredients may be a real improvement over the old product of the same kind, but made in a different way and with slightly different ingredients. Give us a chance to consider with you the question as to whether or not such products are inferior or better because of the change in the process of manufacture, or because of the new ingredients added. Let us settle all of these matters out of the courts if we can. It may be that sometimes we cannot agree and that it will be necessary to submit the matter to the courts for decision, but let us do so with a thorough understanding as to what we are doing—and in a friendly way.

I believe the time has come when the wilful and fraudulent adulteration of food is practically a thing of the past; but the technical adulteration of food, or the technical misbranding of food will probably always continue as long as there are laws that must be construed. Very few men can agree on the meaning of a law. Even the courts themselves do not agree. Sometimes a Supreme Court will stand practically evenly divided with, for example, four judges holding the law to mean one thing and five judges holding that it means something else. If such difference of opinion can exist among those specially trained to construe the meaning of a law, how can the ordinary food manufacturer be expected to always construe it correctly? He should not be too severely condemned if at times he makes a mistake. It has come to my notice that even with respect to such a matter as the size of type the printers, who are specially trained in such matters, cannot agree. Frequently, it happens that a confectioner will send his labels to the printer with instructions that a certain size of type be used, and the labels be printed in a different size of type. How can a food manufacturer be expected to know the difference?

Our Association is making arrangements to keep you better posted on the work we are doing and to give you the benefit of the circulars that we are sending out. In return we ask your confidence. We ask that you give us full credit for trying to do what we understand the laws require us to do. If at times we make a mistake just help us to correct it, and try not to hurt our good name if you can avoid it.

In reading the literature of our Association, we ask you to bear in mind that we treat our members very much as parents would treat their children, and try to give them that advice that will keep them out of trouble. We hope you will read our literature and treat it in that spirit, and if you know that our advice is not being followed or that labeling is being used of which neither you nor we could approve, just give that member a chance to correct it. The same is true of ingredients that may be used. We have found, after years of experience, that there are mighty few confectioners in the United States who are not willing to take good advice and who will not thank you for pointing out to them a possible source of trouble.

I believe that really guilty violators of the food laws should have justice meted out to them promptly and in full measure, especially if they are guilty of real fraud. But I do not believe that mere technical violations of the law should be punished without warning, and from my observation of you gentlemen, I believe that you will agree with me.

Another thing, which seems of importance to us, that I would like to enlighten you in regard to, in case there is any misunderstanding on your part, and that is that our Association is not and has not been identified with any association or associations or conferences of food associations in such a way as to entitle said associations or conferences to use the name of our Association in any manner.

We feel that we can best serve our own interests through individual action and I trust, therefore, that you may, when the question of confectionery is involved, look to our Association only for expressions of opinion relative to any matters pertaining to confectionery.

It might not be amiss at this time for me to also tell you that not alone is our Association giving attention to the purity and truthful branding of confectionery, but the question of sanitation is being just as urgently and thoroughly followed up.

We retain a consulting sanitary expert, Professor S. C. Prescott of the Massachusetts Institute of Technology—some of you may know him personally or by reputation, and if you do, I am sure you will realize that we have in our

service the foremost expert in the practical questions of factory sanitation.

At our last annual convention, held in French Lick, Ind., and at the suggestion of Dr. H. E. Barnard of Indiana, our Association was the first association, I believe, to go on record as advocating and endorsing the medical examination of all employees coming in contact with our products in the process of manufacturing and handling.

As I previously advised, our Association is preparing to furnish you with a complete set of all food laws and sanitary circulars issued by our Association, and will continue you on the mailing list for same, and in addition thereto, we shall mail each of you copies of our last annual proceedings, pamphlet "Our Service," setting forth the services rendered by our Association to its members, and also a pamphlet giving a compilation of investigations made by our Association during the last thirty-one years, of reported candy poisoning cases and harmful adulterations.

I trust this may evidence a desire on our part to take you into our confidence and that we may, in return, be the recipients of yours.

Lastly, I want to express a fond hope that you gentlemen may further earnestly, the question of uniformity between State and National Pure Food Laws, and I pledge you the sincere co-operation of our Association in that effort.

You have shown the right kind of spirit in asking us to meet with you here today. On behalf of the Confectioners I thank you for it. We have always had—and will continue to have—confidence in you, and in return we ask for yours.

President Wallis: I don't know what method the convention wants to adopt, whether they want to ask questions of the speakers or whether they want to wait until they all get through.

Mr. R. M. Allen: I think it will add greatly to the continuity of what is going to be presented if we just listen. My mind is in that condition where I would prefer to just listen to what is being presented to us, without taking up the time for anything like cross-examination.

President Wallis: Very well. That, of course, would not deprive any commissioner from asking a question if he wanted to?

Mr. R. M. Allen: Oh, no. But I would like to listen.

President Wallis: The next paper will be by Mr. W. M. McCormick, Chamber of Commerce of the United States, upon the same subject as the last speaker.

THE NEED FOR UNIFORM FOOD AND DRUG LAWS AND REGULATIONS.

By WILLOUGHBY M. MCCORMICK,

Chairman, Committee on Uniform Food and Drug Regulations, Chamber of Commerce of the United States of America, at Portland, Maine, July 17th, 1914. Annual meeting of the Association of American Dairy, Food and Drug officials.

Mr. President, Members of the Association of American Dairy, Food and Drug Officials, and Honored Guests:

It affords me the greatest pleasure and I count it a distinguished honor to bring to you the greetings and sincere good wishes of the Chamber of Commerce of the United States of America and to be permitted to address you briefly on a subject that is so vital in importance to the people of this nation.

While no doubt you are all familiar with the character of the work being performed by the Chamber of Commerce of the United States—a work which we believe reflects the enlightened and constructive thought and opinion of the business world of the nation—yet it would appear *fitting* and *appropriate* to review in a few words the *purposes* and *objects* of the Chamber.

The Chamber of Commerce of the United States is exactly *that* which its name indicates—the National organization of the business men of the *entire* United States.

It is composed of some 550 independent commercial organizations, such as state and local Chambers of Commerce, National Trade Associations and Boards of Trade, etc.

It has a membership of over 250,000 business firms, repre-

senting every phase and manner of commercial industry, scattered over 47 states, Hawaii, Porto Rico and the Philippine Islands.

This great and influential organization was formed in Washington in February, 1912, when over 700 business men from every part of the United States responded to a call from President Taft.

The President realized the great need for such a National commercial organization, in order that the Federal Government might be in certain and definite touch with the thought and opinion of the business world and avail itself of its experience and sound practical judgment; and in order, on the other hand, that the Federal Government might better serve the commerce and industry of the Nation and open for use the vast amount of information within its possession.

The President believed that this close and practical relationship would be a service to all concerned, and would add materially to the Nation's prosperity and welfare.

The Chamber was organized largely through the efforts of that master mind, Mr. Harry A. Wheeler, of Chicago, who became its first president.

The particular purposes of the Chamber are, in short:

1st—To focus business sentiment.

2nd—To make more available and more useful to all business men the work of the various bureaus at Washington.

3rd—To encourage and promote the organization of associations of business men in all parts of the country, that they may act in concert in promoting the Nation's business.

4th—To diffuse valuable practical information.

A regular monthly publication is issued, entitled "*The Nation's Business*." In addition, a general bulletin is issued weekly, and a Legislative bulletin is issued weekly during all sessions of Congress. The Legislative bulletin follows the progress of all legislation introduced in Congress affecting business and commerce. The Chamber, through its Washington office, provides a direct service to its members in response to requests for information.

The Chamber has established a number of important standing and special committees on Federal and state regulation, statistics and standards, banking and currency, tariff and taxation, vocational education, anti-trust legislation, etc.

An ex-secretary of state, referring to the Chamber, has stated that at last the Federal Government has secured a Third House from which to draw information. To enact sound and practical legislation, which carefully separates the bad and evil from the good and beneficial, calls for a true and first hand knowledge of the subject under consideration.

A member of the Chamber of Commerce, through the Association with which he is affiliated, can present to the Chamber any subject which he elects, and if the Board of Directors deem it one that affects National interest, it will be taken up by Referendum. If approved, it will be presented to Congress and the President, having back of it the force and power of the great body of intelligent business men which the Chamber represents.

Legislation which is so much criticised for its impractical character, while well intended, is due to a lack of proper co-operation between our legislators and business men. Much efficiency and effectiveness are lost by reason of this lack of co-operation.

It is the duty of the business man to confer with those empowered and engaged in enacting laws regulating business, and, on the other hand, the legislators should listen to and counsel with the business men of the country and state.

The attention of the Board of Directors of the Chamber has been called to the importance of and need for uniform Food and Drug Laws and Regulations, in order to insure the most perfect protection universally and equally to all the people of this Nation and thereby promote economy and efficiency both in the laws and in compliance therewith.

It is the opinion of the Chamber that uniform Federal and state food and drug laws are absolutely necessary to insure the highest degree of welfare and prosperity. It must not be forgotten that these laws are penal statutes.

The following resolution was adopted by the Board of Directors:

Whereas the health of the people of these United States is fundamental to the continued and greater prosperity of the Nation, and

Whereas the laws controlling the manufacture and sale of food and drug products are so closely related to the health and welfare of the people, and

Whereas it is necessary to the successful conduct of inter-

state business that the laws of the different states should be uniform and in conformity with the National law, therefore,

Be It Resolved, That a committee of this Chamber be authorized and duly appointed carefully to consider the laws of the states and Nation controlling the manufacture and sale of foods and drugs, and report thereon what changes are required, to the end that food and drug products may be bettered and in all respects manufactured and sold under regulations conducive to the best interests of all concerned.

Pursuant to this resolution the following committee was appointed:

Mr. A. J. Porter, president of the Shredded Wheat Company, representing the American Specialty Manufacturers' Association and the National Food Manufacturing interests.

Mr. B. L. Murray, of Merck & Company, representing the National Drug and Chemical interests.

Mr. T. F. Whitmarsh, of Francis H. Leggett & Co., representing the National Wholesale Grocers' Association and National Wholesale Distributors of Food Products.

Mr. J. A. Green, secretary of the National Association of Retail Grocers, representing the Retail Distributors of Food Products.

Mr. W. M. McCormick, chairman, of McCormick & Co., representing Food and Drug interests generally.

Speaking, therefore, for this newly appointed Committee on Uniform Food and Drug Regulations of the Chamber of Commerce of the United States—for the committee was only so recently appointed that there has been no opportunity as yet to formulate a definite program—I wish to solicit the co-operation of this great Association, representing as it does those officers who are held responsible for the enforcement of the National and State Pure Food Laws, and to offer you, on the other hand, our heartiest and most cordial co-operation.

Our interests are all identical. We are working toward the same end, and by co-operation we shall be able, possibly, to increase the efficiency and effectiveness of the law, National and State.

It will be the earnest desire and purpose of this committee to work with the National and State Food and Drug Control Officials in the general public interest. Having devoted our lives and best efforts and intelligence to the businesses in which we are engaged, we may be able to place at your command practical information which will be of some service.

Since the enactment of the Federal Food and Drugs Act, there has been a growing tendency toward co-operation on the part of these interests, the consumer, the manufacturer and dealer, and the officials.

Why should each work separately and alone?

Why should not there be a cordial co-operation when by that co-operation so much more can be accomplished?

The several trade organizations have devoted a large share of their time and effort toward the strengthening and harmonizing of the food and drug laws. I would mention particularly the American Specialty Manufacturers' Association, representing the great specialty food manufacturers of this Nation.

That influential organization has worked most effectively in the interests of pure foods and pure food legislation, and to bring about a cordial and harmonious co-operation between the manufacturers and the officials.

It was through the efforts of that organization that the National Food Trades Conference was formed, in order to crystalize the opinion of the food trade on general subjects and afford a medium for co-operation with the Government and state officials. You are all familiar, I have no doubt, with the work of that conference to date.

The Flavoring Extract Manufacturers' Association of the United States has also been a most potent influence in beneficial legislation affecting the people.

And now follows the committee created by the Chamber of Commerce of the United States, representing the entire food and drug industry of the Nation. Through such mediums the officials and all others interested may meet and confer with accredited representatives of the enormous food and drug trade of this country.

Now how may our committee be of service? In this way, we believe:

We believe that if general policies or far-reaching and general laws or regulations are contemplated, National or state, that this committee might be consulted to advantage, in order to ascertain the practical underlying conditions.

We believe, too, this committee can be of service by suggesting possible ways and means, in the light of ripe experience, whereby the existing laws and their enforcement may

be strengthened and by suggesting new and additional legislation, so that the food and drug laws, National and state, may develop along harmonious lines.

It is a great pleasure to express the strongest approval of the establishment by Dr. Carl Alsberg of a division on Federal and state co-operation in the Bureau of Chemistry. There was need for such a practical centralizing and harmonizing influence.

We may urge uniformity for a long period, but unless our good wishes are written into practical results, little will be done. This newly created division will tend to bind together, we believe, not only the Federal and State Food and Drug Departments, but also the other bodies and organizations, such as this committee, and to bring about a general and intelligent co-operation. If this division may be made the general clearing house for all such matters existing or proposed, it will be a most potent influence.

This committee, with its headquarters at Washington, at the National office of the Chamber, will be ready at all times to co-operate with the division on Federal and state co-operation in every possible way.

I desire to give a practical illustration of the value of conferences between the authorities and those whom laws of this class are intended to affect, before such laws are enacted.

At the last session of the Maryland Legislature our State Board of Health was desirous of having certain sanitary laws placed upon the statute books, and to that end had drawn three bills, one of which—known as House Bill 229—affected the sanitation of factories and business places.

The intent of the proposed legislation was most meritorious, but, as will always happen when laws are framed without first-hand information as to the details of the conditions which they are intended to remedy, there were a number of requirements in the bill which were impractical. However, our State Board of Health, when this was pointed out to them, called into conference the leading trades organizations of the state who sent representatives with practical experience and technical knowledge.

Right here I want to pay a tribute of respect to that organization and its officers, particularly Dr. Chas. A. Caspari, Jr., our able and conscientious Food and Drug Commissioner.

The result of the conference was that the bill as finally passed represented the best thought of the citizenship of the state and is, we believe, an ideal law of its kind.

John Ruskin once said:

"All knowledge is lost which ends in the knowing, for every truth we know is a candle given us to work by. Gain all the knowledge you can and then use it for the highest purpose."

Therefore, let us get true knowledge of our needs in food and drug legislation, and enact that knowledge and only that knowledge into uniform and scientific laws. Scientific laws are nothing more nor less than the refinement of common sense, for science sits at the feet of common sense.

There is a vitally important thing to be considered when passing such laws as appertain to food and drugs, and that is that the selling price of the goods whose manufacture, sale and distribution are being regulated by these laws is based entirely on the cost.

Last summer, when the Board of Directors of the Chamber of Commerce were making their western trip, we were fortunate enough to be in Seattle during the week of the Potlatch festivities. There were in the harbor several men-of-war and, therefore, many sailors in the city. In front of one of the Socialistic headquarters, a speaker was addressing a large crowd. From a window above hung a red flag. In the course of his remarks the speaker stated that if he had an American flag, he would tear it to pieces, spit upon it and stamp upon it until it could not be recognized.

Two blue-jackets slipped quietly away and secured an inexpensive United States flag. Returning, they pushed themselves through the crowd up to the speaker and handed him the flag, at the same time daring him to treat it as he had said he would. He snatched it and began to tear it. Immediately the blue-jackets were on his shoulders. A free fight at once took place and in a short while the hospitals were bandaging broken heads.

The sailors were very much wrought up over the matter and going back to their ships reported what had happened. The next evening several of them came ashore, went to this place and overpowered those inside. They moved all the furniture, even the pictures from the walls, together with large quantities of literature, to the sidewalk and set fire to the mass.

They then made a dash to another I. W. W. headquarters, where they met with some opposition. So incensed were

they that they set fire to the house and destroyed it, together with a large quantity of literature.

When the affair was brought to the attention of Secretary of Navy Daniels, who was in Seattle at that time, he said that he regretted the incident very much and offered to make all amends possible, at the same time stating that he could not overlook the great insult to the Flag, and felt that the sailors expressed the true feeling of the whole country—ONE FLAG FOR ALL—and it would be well for anyone who did not believe in that Flag and did not respect and love it, to betake himself to some other country.

The incident shows loyalty to the Flag and to the American institutions which it represents. It is the concrete expression of our National life, hope and ideals. So let us have ONE FLAG—ONE FOOD AND DRUG LAW for North, East, South and West!

The law, like our Flag, will mean only what we make it mean. If we are convinced of its righteousness and believe in it, we can make it as strong and effective as a law of our Nation should be; if we do not believe in its justice, fairness and wisdom, it will be hard to enforce.

Let us not only be loyal to our country, but so frame its laws—general, and food and drug—that we may look upon them and those who execute them with respect and admiration and set the standard in these matters for the Nations of the earth to follow.

Let our motto be—equal opportunity, equal protection and uniform standards for all.

President Wallis: Mr. Beggs, the vice-president of the Flavoring Extract Manufacturers' Association, was to have delivered a paper here, but he has wired me that he could not come and said that he had mailed his paper to Mr. Lannen, their attorney, and would request that he be allowed to read it. The telegram reads as follows:

St. Louis, Mo., July 15, 1914.

James H. Wallis,

President Food Commissioners' Convention,
Portland, Me.:

On account of the enforced absence of Mr. Beggs, first vice-president of our association, I appoint our attorney, Mr. T. E. Lannen, to speak in the place of Mr. Beggs for the Extract Manufacturers' Association at your convention and would appreciate your according Mr. Lannen this privilege.

SAMUEL H. BAER,

President Flavoring Extract Manufacturers' Ass'n.

I assume there can be no objection to our having Mr. Lannen read this paper. I will call upon Mr. Lannen.

WHAT SHOULD BE THE RELATION BETWEEN FOOD MANUFACTURERS AND FOOD COMMISSIONERS.

MR. T. E. LANNEN.

Mr. Chairman and Commissioners:

The Flavoring Extract Manufacturers' Association of the United States is one of the youngest of the food associations, yet one of the most enthusiastic in the work of establishing with the food officials of the country such a relationship as will not only tend to promote the very best of good feeling, but will also command your admiration and respect. We realize that sincerity of action of the proper kind is one of the first requisites of any movement calculated to establish a relationship of trust, and we believe that if you will examine carefully into the work we have done, and are carrying on today, you cannot fail to reach the ultimate conclusion that our efforts to comply with the food laws are sincere. Therefore, we invite you to consider with calm deliberation the work that this Association is doing, and we rest secure in the firm conviction that the proper relation between you and us will at once be established. We do not make this assertion as an idle boast, nor without knowing to a certain extent whereof we speak, for such contact as we have already had with you has demonstrated the fact that it is entirely possible to establish a very satisfactory understanding and a co-operation of a most helpful kind.

We have our problems to solve and we need your help, and we feel that in no small degree do you need us; because

while there may be differences of opinion between you and some individual manufacturers of flavoring extracts, as between you and this Association you will find that our objects are the same.

Now let us see wherein you can help us.

In the first place, you can help us to understand what your laws require. This Association cannot intelligently inform its members of how to comply with what you consider your laws require unless we are informed by you of what your understanding is. It is true that we can get your laws and that we can place on them such a construction as we believe they will bear, but that construction may be at variance with your own. Not such a variance, perhaps, as would be irreconcilable, but yet sufficient to cause a conflict where under a better mutual understanding a conflict might be avoided. It is not our aim to draw fine distinctions on legal points that may be raised as to the meaning of a law, but rather it is our aim to comply, as far as possible, even very often at a sacrifice of our own views, with that meaning which the law has to you. Food manufacturers are not looking for trouble if they can avoid it. The great majority of them prefer to do what you would have them do rather than to have trouble with you. In fact, I do not know of any who go out looking for trouble. Therefore we must at times ask you to give us a little help in getting up such literature as is intended to advise our members of what you understand your laws require. You may think, perhaps, that your own literature is sufficient for such a purpose, and that you have explained your attitude in language easy for all to understand, but only the food manufacturer himself can fully appreciate how hard it is to understand what laws require and we feel that very frequently we can put a matter up to our members in such a way that they will understand it better than they would from your pamphlets or your laws. We want you to help us in this good work. Then, again, we learn of matters that worry our members and points arise on which no published information can be found. It is our duty to settle such points and do so promptly, and in this we must ask your help.

Another matter in which you can help us, more, perhaps, than in anything else, is the matter of uniformity of laws and rulings. Your Association can do much for us in this respect. There is a world of good to be done on this question in the matter of eliminating the numerous little points that cause us trouble and over which we feel sure there is no one who would haggle. There are great, big questions involved in the matter of uniformity, and if that good object is ever accomplished it will be only after someone has surrendered views that are hard to surrender, but in the meantime there would seem to be no good reason why we should not clear away the underbrush that does nothing but sap at the roots of healthy commerce. Therefore, let us start at the matter in a small way at least, and in the starting alone we are making progress.

Another point that concerns us vitally is the matter of simplicity of labeling. We have to deal with exceedingly small labels, on some of our packages at least. There are requirements of the laws which compel us to use type of a certain size. We have no objection, as a rule, to the size of type required, but when you specify that a great deal of information shall be given on our labels, then it frequently becomes difficult if not impossible to print all of such matter in the type required. Therefore, our labels should be simple, but as plain as they can be made.

You can help us also in the matter of legislation. We are getting too much of it. You are not responsible for all of it, and neither are we. Very frequently it has happened in recent years that we have been compelled to call on you to help protect us from obnoxious legislation calculated to unjustly injure us and for which you were in no way responsible, and with which you had no sympathy. We need your help in such matters. A word from you to the Legislature will always go a long way toward placing such bad laws in their proper light before the lawmakers and the people. We feel that it is your duty to protest against a law that you feel will work injustice and accomplish no good results. These laws are frequently introduced at the request of people who think they know more about enforcing food laws than you do or who have some ulterior motive of their own. Such laws are a real menace to food manufacturing industries, and the introduction of them should be discouraged.

The question of standards is another question on which we believe there should be co-operation. Standards should be established, if at all, only after the fullest consideration. It should not be assumed that the manufacturer cannot help in such a matter, and we do not believe that you have or will so assume. It should be remembered that the manufacturer is in the work of making his products every day, and in the

natural course of things must be familiar with them. The honest manufacturer can help you materially in such a matter. Even the question of whether there should or should not be standards is one worthy of careful consideration, and there are many honest views opposed to each other on the subject, to say nothing of the question of what the standards should be if established.

These are only a few of the very many matters on which by means of a proper relation between you and us ideas should be exchanged.

On the other hand we feel that we can be of help to you. First by helping you to have your laws and rules respected. We can help you accomplish this by bringing your requirements directly to the attention of our members. We can see that they are properly informed. We can go even further and call their attention to the fact that while informed, perhaps, they neglect to give proper consideration to the importance of complying strictly with the laws. In fact, there are many ways in which we can act that are not always open to you. We feel that in many respects we can accomplish more than you in the matter of having the laws obeyed, if in our efforts we receive from you the help we need.

We believe that our members are obeying the laws as they understand them. We believe that there is seldom any occasion, if at all, in which it is found that an extract manufacturer is wilfully violating the law. In the great majority of cases in which prosecutions are brought it can usually be shown that the violation was the result either of some technical mistake or of an honest erroneous opinion of the requirement of the laws, or a total lack of information on the subject.

It has always seemed to us to be unfortunate that such a condition should exist, and it has always seemed wrong to punish a manufacturer not wilfully guilty, and we believe it is worth while for us to strive hard to establish such a relationship with you as will correct such conditions.

The flavoring extract industry is a great industry, and our association can claim the distinction of having within its membership the cream of the industry—men of the highest integrity. It is our ambition to be recognized by you as standing for the highest ideals that can be attained in our line. We feel that by inviting us here today you have honored us in no small degree and we are indeed duly grateful to you, but it must be obvious that we must not merely meet and part. A day is too short a time in which to listen to all of the food industries of the country. And so those of us who have been fortunate enough to be invited here to this convention wish to express the hope that when we adjourn it will be only to take up the real work that this meeting suggests—the work of reaching a better understanding of our respective duties and a mutual trust in each other.

Respectfully submitted,

FLAVORING EXTRACT MANUFACTURERS' ASSOCIATION OF THE UNITED STATES.

President Wallis: I will call now on Dr. Wagner of the Corn Products Company.

Com. James Foust: Mr. President, permit me to say a word at this time. It seems to me that the commissioners here should have the privilege of asking a few questions. Possibly we could get some information that would be of value to everybody.

President Wallis: I suppose you were not in the room, Mr. Foust, when I brought that question up. The convention decided that it would prefer to listen. That question is always before this body, of course, to take what action it likes.

I don't see Dr. Wagner present. I know that he is in town, however, and he told me that he would be here. We will pass that number, then, and call on Mr. John E. Linihan, president of the United Cereal Mills, Ltd. Is he here? If not, we will take up the paper, "The Advisability of Labeling Canned Foods, with the Date When Such Foods Were Packed," by Mr. Arthur Meeker of Armour & Co.

Mr. Kirk: Mr. Meeker is unable to be here this afternoon. He contemplated coming here until the last moment, and I am quite sorry that he did not come, but he has asked me to read his paper, if there is no objection. He is the practical man in this business, and I am sure that he would have been glad to

have answered any questions that might have been asked, which I am sorry to say I shall not be able to do, not being in the business.

THE DESIRABILITY OF LABELING CANNED GOODS WITH THE DATE WHEN SUCH FOODS WERE PACKED.

MR. ARTHUR MEEKER.

Mr. President, Members of the National Food Association, Ladies and Gentlemen:

At the outset I desire on behalf of Armour & Company, whom I represent, to thank this association for the opportunity afforded me of addressing this meeting. I understand this is the first time in the history of your organization that the manufacturers have been given a voice in the meetings and I feel sure that the innovation will be received with such favor that it will become a regular part of your program each year.

It is impossible for the legislators of our various States to enact laws which are definite enough to fit all the contingencies which arise in connection with the preparation and sale of food products. Adulteration and misbranding, the two cardinal sins against which food laws are directed, are usually described in general terms.

The Food Commissioner or the official to whom is delegated the enforcement of the law must of necessity work out details of administration and definition, and I think it is safe to say that the great majority of controversies that arise between food authorities and manufacturers are due to differences of opinion regarding matters concerning detail regulation rather than those of strict statutory provision. Therefore, a frank exchange of views between manufacturers and food officials is bound to be a benefit to both. A manufacturer who has manufactured according to a given formula, or used a certain label for a number of years, is most likely to resent any interference therewith by the regulations of a food commissioner, unless he is convinced that there is some real need for such a regulation and that it is a reasonable one under the circumstances.

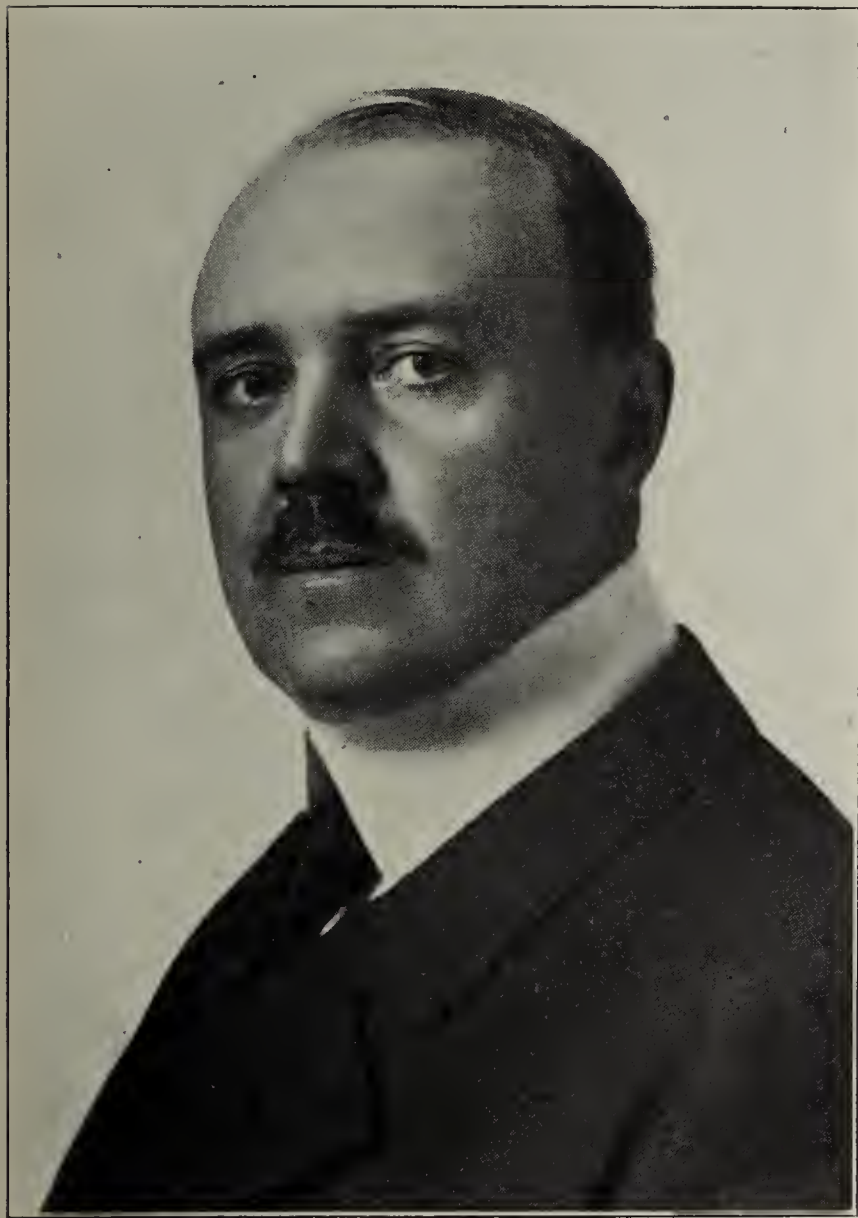
The above is, of course, extraneous to the subject assigned to me, but I wanted to impress upon the members of this association how Armour & Company feels about the movement you have inaugurated.

Now, as to the subject assigned to me, "The advisability of labeling canned foods with the date when such foods were packed." I have no doubt that the views of some eminent men on this subject are widely divergent, particularly as this question has been agitated considerably during the past few years and no uniform agreement seems to have been reached on the subject one way or the other.

As I view the matter the real question to be determined is will a law requiring canned goods to be labeled with the date when packed serve to protect the health of a consumer or prevent fraud and deceit. In other words, would such a requirement operate as a logical means to a beneficial end, or would it by requiring such information to be given the consumer put the manufacturer and dealer to an increased operating cost without in the same relative degree, or to some extent at least, benefitting the consumer.

The primary object of the pure food laws is the protection of the consumers by the prevention of adulteration and misbranding. The consumer is unquestionably entitled to foods that are sound and wholesome and which are truthfully labeled; that is, labeled to show exactly what they are without any false representation as to the ingredients, methods or place of manufacture, etc. It is needless to say that the date of packing can have no effect on the wholesomeness or unwholesomeness of an article unless it can be positively said that a canned article of a given age is *prima facie* deteriorated or unwholesome. Such a presumption is, of course, absurd because a perfectly sterilized, processed and sealed can of food carried under favorable conditions will remain absolutely sweet and sound indefinitely, while on the other hand a can imperfectly processed, sterilized and sealed will deteriorate rapidly. The very first consideration under all food laws is wholesomeness. The date is immaterial. Products of very recent date might be decidedly unwholesome, while others of much earlier date might be entirely sound and wholesome. Every canner knows that even with the most approved machinery and methods of canning an occasional "slow leaker" will develop through defective tin or an improperly constructed can. By slow leaker we mean a can that develops a leak so small that the regularly prescribed tests will not detect it and the can may never become a

"sweller," yet in the course of a few months such can deteriorates enough so as to become virtually unwholesome and unfit for food. Dating cannot possibly protect the consumer against any such condition, or, in fact, any condition which results from an imperfectly sterilized, processed or sealed can, be it caused by a slip on the part of the operator of the machine or to an improper method in general. It all depends on the can being air-tight and how the food is put into the can, and, of course, to some extent on the care with which such canned goods are handled after they leave the factory. Clearly, therefore, unless it can be positively proven that all canned foods, no matter how perfectly canned, will deteriorate after a certain length of time, which point I will discuss a little later on, no benefit can possibly be derived by the consumer by a dating requirement. By the time a can reaches the consumer through the usual channels of trade, it is either good or bad. There is no half way condition in canned goods. If the can is bad it is due to imperfect sterilization or packing, and not to the time that has elapsed since packing. The date furnishes no possible information to the consumer upon



MR. ARTHUR MEEKER.

the question of wholesomeness. Protection in this respect must come from authorities working under the general food laws.

Looking at the matter from the manufacturers' and dealers' standpoint, I can see where such a requirement would be a serious burden. Aside from the cost of showing the date on the labels, I think I have been in the canning and distributing business long enough to speak authoritatively when I say that the consuming public would insist on buying the latest packed goods, regardless of quality or other considerations, and the consuming public would be justified in taking such a position, for the implication would be thrust upon the people from the mere passage of a compulsory dating law that scientists had determined canned goods deteriorate from day to day.

This discrimination would certainly result to the detriment of the dealer as to the older goods on his shelves. What then would be the result? Clearly he would not undertake to carry a very large stock because he might not be able to move the same before they reached the age when his customers would object and buy later packed goods. This would

mean smaller orders from the wholesaler or jobber at an increased cost, because the cost of soliciting, packing and shipping a small order is practically the same as a larger one, and, therefore, the selling cost must be increased accordingly. Manifestly any loss sustained on account of inability to sell by reason of the deterring effect of the age of such goods would be an operating charge affecting the consumer.

Likewise the wholesaler or jobber would not carry any considerable stock of such canned goods because of fear of loss on account of the demand for newer goods brought about solely by the fact that the consumer when making his or her purchase is enabled to know the date of packing, and, having in general an opportunity for selection, taking the cans bearing the latest date. I feel entirely safe in saying that this would be the unavoidable result.

Carrying the matter back to its logical conclusion, the effect on the packer or canner would indeed be very serious. It is a well known fact that in practically all branches of the canning industry there will be seasons when material for canning is very plentiful as well as seasons when such material is exceedingly scarce. If as is practically certain, the demand for the later packed goods will seriously operate against goods packed the preceding season, the canner of foods would not dare to can more during a season of plenty than he felt after careful calculation he could dispose of. The effect of this, to say the least, would be to cause a fluctuating price of such canned goods ranging from a near normal price in years of plenty to an excessively high price following years of scarcity, and an accordingly decreased amount of such goods for consumption during the year following a scant season. This is not in accordance with the generally accepted ideas of food conservation and schemes for reducing the high cost of living. The canning industry has done far more than any other industry to conserve the food products of the world and thus reduce the cost of living. If it were not for the canning of fruits and vegetables they would indeed be luxuries for the rich during a great portion of the year. This is so self-evident that it needs no argument. Now, then, if the canners cannot afford during the periods of abundance to pack more than they can reasonably hope to dispose of during that season, because there is no demand for goods packed during a previous season, then much of the practical benefit from such food conservation would be lost. The producer or grower of the products so canned will also be a heavy loser on account of such condition.

Only a few years ago, as everyone knows, considerable doubt and skepticism was evinced by many consumers towards canned articles of food. Cases of so-called ptomaine poisoning were continually reported in the newspapers, and in every case the trouble was ascribed to canned foods of some kind. This feeling of fear has been entirely overcome and perfect confidence is now reposed by the consuming public in canned foods, with the result that the canning industry has grown by leaps and bounds. Under the present improved methods of putting up canned goods, they can be held indefinitely in perfect condition and the fact that such canned goods may and often do remain on dealers' shelves for long periods of time has furnished the strongest possible incentive for experts in canning to so perfect the methods that age will have no deteriorating effect. Certainly nothing should be done which will in any sense bring about a lessening of that high degree of care and efficiency on the part of the canner. In other words, the canner should not be allowed to feel that no one will be likely to buy his goods after they are, say, six months or a year old, and that without such a high degree of care or testing his products will keep that long.

As a practical matter, the real protection of the consumer of canned goods lies in the examination of the tin and the appearance of the condition of the can and not in the knowledge of the date when packed. A can of food when "collapsed," that is not showing any bulging or swelling, but furnishing evidence of a good vacuum, will in nine hundred ninety-nine times out of a thousand be in good condition and safe for human food.

This, taken together with a good appearance of the contents when the can is opened, furnishes a practical guaranty of wholesomeness regardless of the age. It is along this line that the consumers of canned foods should be educated and certainly the dating requirement will serve no useful purpose in this respect.

On the other hand, is it not likely that consumers will rely on the date as furnishing protection to the exclusion of other means; that is, that although the can may look a little swollen, or have a soft appearance on being opened, if it bears a recent date, is not the housewife likely to say: "Well,

this is a new can, so it must be all right"? If this may happen then we certainly should not give them such an opportunity to be misled.

It is of the highest importance that foods be placed in the can while in a fresh and sound condition. A dating requirement would furnish an incentive for either having the goods when marketed show a false date, or for the holding of such goods in cold storage or otherwise preserved in bulk in order that the date when the goods were finally canned would be recent. A premium should certainly not be placed on practices of this kind.

I am not a chemist nor a scientist and this is not intended to be a scientific paper. I did, however, make some inquiries among scientific men as to any data they might possess or could procure on the question whether or not canned foods gradually deteriorate with age, and was surprised to find that there has been practically no research work along this line. So far as my own observation goes, I know that on a number of occasions in the past several years we have picked up cans of meat manufactured by our company and known to be many years old, and after analysis our chemists reported the same sound, wholesome and fit for food. This is not an exception but the absolute rule wherever the cans are perfectly constructed, sterilized and sealed.

Therefore, in conclusion, I want to say that if there is no deterioration of canned foods with age, a dating requirement would not be of any benefit to the consumer, but on the other hand would seriously affect the sale of canned foods for the reasons hereinbefore given.

In any event, it would seem to me to be the height of folly to enact any hit or miss statute on a subject like this. I for one do not propose to stand out against laws which would be of benefit to the people at large, but I do think it should be scientifically determined that there is deterioration with age before any dating statute is enacted so that such a law will have a firm foundation upon which to rest. If there is a need for such legislation, then it should be national, but first of all we should let our scientific men determine the question whether any good will be accomplished by such a law.

I thank you for your attention. Respectfully,

ARTHUR MEEKER,

Vice President, Armour & Co.

President Wallis: Is Dr. Wagner present now? If not, I will call upon Mr. Cassius Way. Is Mr. Way present? Is Mr. Husband present? Mr. Husband is the secretary of the Millers' National Federation. We will hear from Mr. Husband.

Mr. Husband:

SELF-INTERESTS A MUCH GREATER REGULATOR OF FOODS THAN ANY PURE FOOD LAW.

By A. P. HUSBAND,

Secretary, Millers' National Federation, Chicago.

Mr. President and Gentlemen of the Convention:

There has recently developed a sentiment that greater uniformity in laws and regulations, as applied to food commodities, is greatly to be desired. We feel that we reflect the views of all reputable manufacturers of foods when we express the opinion that in thus setting aside one day in your proceedings to be known as "Manufacturers' Day," and inviting representatives of various lines of manufacture to address you, you have gone on record as desiring the co-operation of manufacturers in applying such laws and regulations as are necessary for the protection of the public, and for the protection of the honest manufacturer against unfair competition. That co-operation will not be withheld, and by thus giving the manufacturers an opportunity to discuss, in your presence, the commercial conditions under which they must operate, a better understanding will result, which will doubtless develop into mutual respect and confidence. With this as the basis, there should be little difficulty between the authorities and manufacturers. Many of us feel that some of the regulations now in force were drafted by men who had no knowledge of existing commercial conditions, and we are encouraged to hope that increased knowledge of the manufacturers' difficulties will prompt changes in some regulations that are now burdensome, and which do not give the consumer added protection.

The statement, that "Self-Interests are a Much Greater Regulator of Foods Than Any Pure Food Law," is so plausible

that, considered from the standpoint of the manufacturer, it requires no argument. It is inconceivable that any manufacturer of a food commodity, having invested in his business an amount of money varying from thousands to millions of dollars, should not be ever on the alert to see that his product appeals to the consumer on account of its quality. There are but few, if any, staple food products that are not extensively advertised; it may be true that a product of ordinary quality will sell better, because of publicity, than others which are superior in quality but whose merits are not brought to the attention of consumers through advertising. The fact remains, however, that the buying public was never as fickle as it is to-day. It is not unusual to see a brand of food extremely popular in a limited zone for several years, and suddenly be relegated to the background, to make way for a brand which depends almost exclusively upon its quality to gain public favor. Endless competition acts as the greatest stimulus for a manufacturer to set his standard of quality high, and to-day, more than ever before, he must consistently maintain a high standard in his product, or be overwhelmed in the pitiless competition which his carelessness in this respect would invite.

Should his business be such that he also manufactures a by-product which is used for food purposes, the need for close supervision of both principal product and by-product becomes imperative. It may be, as in the milling business, that he cannot control the quality of his raw material, and both his principal product and his by-product must vary with the quality of his raw material; under such conditions the difficulties of a large manufacturer multiply, and, as competition never ceases, he faces a loss of prestige for his products among trade which he may have acquired at great expense of time and money. Certain it is that no manufacturer will attempt to-day to put out an inferior article under an established brand unless he is driven to it by the stress of approaching bankruptcy, and he has ceased to care for the reputation of his brands. One such error on his part could be so widespread in its effects as to finally ruin him.

There was recently issued by the United States Department of Labor a report of an investigation of "Wheat and Flour Prices, From Farmer to Consumer," by J. Chester Bowen (Whole No. 130). On page 14 of this report the author says:

"In a survey of the distribution of wheat and flour three things are noticeable: The intensely competitive character of the business, the excess in the equipment for distribution, and the desire for independence of the people engaged in production and distribution. If one farmer will not sell his wheat at the price offered, another farmer will. Local dealers, jobbers and millers bid against each other in the buying and selling. Flour is made in the town of A and shipped by rail to be sold in the town of B, while flour made in B is sold in A. A grocer in the east end of town hauls flour across the city to a customer in the west end of town, and the grocer in the west end delivers to a customer in the east end. The Minnesota miller sometimes buys Kansas wheat, and the Kansas housekeeper sometimes insists on having Minnesota flour. And not only are the products crossing trails in distribution, but traveling salesmen of many mills and flour jobbers are duplicating their labors in the same territory. . . . It is asserted that the mills of the United States could grind all the wheat raised in the United States in 144 days (24 hours per day)."

On page 15 he states:

"Probably no other line of trade is so crowded as that of the retail grocer, and no tradesman is more jealous of his independence. And the fields of milling and of grain and flour jobbing are but little less crowded with men of like character."

In submitting such statements as part of his report as an unprejudiced investigator, Mr. Bowen not only answered, perhaps unconsciously, all arguments advanced in regard to a "Milling Trust," but also proves conclusively that with such a surplus milling capacity, a miller must be keenly alive to the competition in his line, and he must keep in the front ranks or be consigned to the long list of unsuccessful milling ventures. The situation as regards competition obtains in other lines of manufacture, and while it may not be true, as Mr. Bowen states of the milling business, that all the available raw material in every line could be manufactured in less than six months of each year by the plants now in operation, it is nevertheless true that our competitors do not seem to sleep; that they are always on the alert for new business, and show no mercy to the unfortunate member of the industry whose products may, as a result of accident or relaxed vigilance, come into disrepute.

It is a peculiar fact that in all the regulating that has been

done in recent years, so little of it affects the farmer. For example, grain is subject to no regulation until it reaches the miller; when once in the miller's possession, however, it becomes the target for governmental supervision, not only to the end that the miller shall turn out his principal product (flour) free from any deleterious substance, but his by-product (feed) is subjected to even closer supervision. Witness the zeal of some feed control officials during the past year, when the Federal Government took up the question of screenings in millfeed. Since the installation of modern machinery in flour mills millfeed has always carried with it a certain proportion of screenings material, and we have known millfeed to bring a premium because of the presence of ground screenings, the buyer explaining that he wanted feed with "meat" in it. It was a common commercial practice and had been followed by millers for years, without secrecy and without harm to the animals to which it was fed, and it is presumed that officials charged with that duty examined and



MR. A. P. HUSBAND.

analyzed millfeed for years without finding anything in it to warrant interference; upon action being taken by the Federal Government, however, many of the feed control officials not being acquainted with the facts, were filled with indignation that the miller should adulterate his feed by putting into it screenings, and thus deceive the farmer, who, but a short time before, had sold these identical screenings to the miller, or to the grain shipper, at the price he received for his wheat, of which it was a part. It seems only reasonable that the man who produces the raw material should be held accountable for its purity, as well as the manufacturer who turns out the finished product.

Under present conditions a manufacturer must not only be familiar with the character of the goods with which he is competing in distant markets, but he must be familiar with numerous peculiar regulations with which he must comply before offering his product in those markets, and be familiar with Federal regulations as well, if doing an interstate business. As many of the states impose an inspection tax on certain commodities, he must keep posted on these, and must

know the destination of the shipment before he can safely name a quotation, and if the inspection tax is in the form of a fixed sum annually, he may be at a disadvantage as compared to a manufacturer resident in that state, who does a steady business in the state, thus reducing the unit of taxation to a minimum. Under such conditions competition is limited, and the effect of that kind of regulation is to afford manufacturers within the state an opportunity to secure higher prices because of the restricted competition, manufacturers outside the state in many instances declining to pay an annual registry fee, with a prospect of doing only a very limited business.

As some of these inspection fees are imposed under a statute which provided the tax for the purpose of maintaining an Inspection Department, it is pertinent to call your attention to a decision rendered by the United States Supreme Court a few weeks ago (*Foot & Co. v. Stanley*, 232 U. S., 494, reported P. S. Supreme Court, advance opinion, April 1, 1914, No. 9, page 377; see also 34 Supreme Court Reporter, 377). This was a case which went up from Maryland, where there is an inspection law on oysters; as the revenues derived were far in excess of the cost of inspection, the Supreme Court held that it was not an inspection law, but a revenue law under the guise of an inspection law, and therefore invalid.

No one will question the splendid results that have been secured under the Food and Drugs Act, in the comparatively short time it has been in operation; it has accomplished the purpose for which it was enacted, but why continue to add laws and regulations which threaten to stifle enterprise and restrict competition, entailing an increase in the cost of production and distribution, with a corresponding increased cost to the consumer? Why should there be any more difference in the commercial laws of the several states than in their laws of personal conduct? A miller operating a flour mill in a western state can visit any of the numerous summer resorts on the New Jersey coast without consulting the statutes of that state as to how he must conduct himself, but if he desires to sell part of his product in New Jersey, he must figure, when naming his price, upon paying an inspection tax which is greater than his normal profit; if not posted on this regulation, he loses money. The restrictions placed upon certain lines of food in some states are so strict that manufacturers decline to make efforts to sell their products within their boundaries. Within a month a reputable manufacturer of a staple food commodity said he had abandoned efforts to sell his product in a certain state because it was impossible, in a commercial way, to meet the requirements of the authorities in that state; yet that man's product has stood the test imposed by certain accepted authority, and is listed in the advertisements of a well-known community, that recommends it as one of the two perfectly pure food products of its kind.

A manufacturer generally fills orders for all states from a common stock, which has been manufactured according to his standard of quality, which competition demands must be high. If acceptable to the authorities of one state, why should it not go into every state under the same label, so long as the standard of purity is maintained? In the case of the manufacturer referred to, why should the citizens of one state be deprived of an opportunity to use the product, when it has stood an exacting test by a chemist or a commissioner of unquestioned standing?

It is not the desire of reputable manufacturers that regulation be discontinued, but a few suggestions covering some features of the work are perhaps in order: The one thing most to be desired is greater uniformity, and we are greatly encouraged by the establishment in the Bureau of Chemistry of the Division of Federal and State Co-operation; why not begin the task of unifying regulations by each state adopting the regulations for the enforcement of the Net Weight Amendment, recently issued by the Bureau of Chemistry, U. S. Department of Agriculture? These have been compiled after a series of experiments and investigations which no one state can afford to conduct. Some of the states now have Net Weight laws, and it is probable that others will follow the lead of the Federal Government, and enact similar laws; if nothing is done at this time to guide the state authorities toward uniform regulations in this matter, each state will proceed to issue regulations regarding tolerances and variations based upon the observations of its officials in their own limited sphere, and manufacturers will shortly find themselves in a perfect labyrinth of weight regulations, issued with little or no regard for commercial conditions.

When a product of a reputable manufacturer comes under suspicion, why not give him an opportunity to investigate the

cause of the trouble and correct it before giving publicity to the fact that some of his product was seized for violation of law or regulation? The newspapers of to-day do not minimize a news item of that character, especially if the manufacturer is an advertiser and they have not secured some of his patronage. The use of the word "adulteration" is unfortunate, in that it conveys to the mind of the average reader the impression that the manufacturer has deliberately, and with intention to defraud, substituted an inferior or unwholesome product, to increase his profits, whereas he may be guilty of nothing more than a technical violation, which can be corrected by a change of label. During the new era of co-operation which we trust we are entering, give the offender a chance if his record has been good, because the single publication of the fact that some of his product has been seized may off-set years of work and thousands of dollars' worth of advertising, and perhaps ruin him. In reply to a recent request a State Dairy Commissioner sent me copies of the feeding stuffs laws of his state; fortunately for me, these copies were not separated from the envelope in which they were received. I say fortunately, because while the regulations were all printed in full there was no statement giving the name of the state, or the name or address of the commissioner. Therefore had it become separated and mixed with other papers I had no way of knowing to which state the regulations referred. The error was, of course, chargeable to the carelessness of the office force. The point that I am illustrating is that many of the manufacturer's errors are made in the same manner, and he will be only too glad to correct them if his attention is called to them.

You, gentlemen, can materially assist manufacturers to keep within the law by preparing for distribution the regulations which you insist upon being carried out in the territory under your supervision. Remember that a manufacturer, perhaps hundreds of miles away, would not trouble you if he did not need the information he requests, and in addressing you in your official capacity he is within his rights in expecting the information that will enable him to comply with your laws and regulations. It frequently happens that when we ask specific questions we receive in reply a copy of an entire statute, which, to be of any practical use, must be interpreted by an attorney.

Perhaps a committee from your organization, to confer with a similar committee from the Food Trades Conference, would be able to secure from the representatives of the various lines of food manufacture represented in that body, information that would prove valuable in the task of securing more uniform regulations.

I have wandered somewhat from my text, but I appreciate the opportunity of placing before you some difficulties with which we have to contend, and on behalf of the industry that I represent, I promise you the most hearty co-operation in any efforts you may put forth toward securing greater uniformity in laws and regulations; many manufacturers have added chemists to their working forces within the last few years; do not make it necessary to add attorneys as well. I thank you.

Com F. A. Jackson of R. I.: Mr. President, of course I suppose these men who are not present when you call upon them will not lose their right to appear tomorrow?

President Wallis: No. Their speeches will appear in the official report, I trust, even though they are not here. I would like to make a suggestion to these gentlemen who are appearing before this body, and that suggestion was made to me by some of the commissioners, that they should file with our stenographer the names and addresses of the secretary of each of your organizations, so that we can have something of record in our offices, so that when we want to communicate with them we can have the name of some official we can correspond with and who represents the organization. If I had had such a list as that when we prepared Manufacturers' Day we might have done a little better with our program and had a much easier time arranging it, and so I make that suggestion to the different organizations which are not being represented before this convention.

(Stenographer's Note: No names such as Presi-

dent Wallis requested were filed with the stenographer.)

Dr. Bigelow: Is there anything under discussion just now?

The President: I presume we cannot continue with any other addresses because there is no one here we can call upon to speak.

Dr. W. D. Bigelow: Some years ago considerable friction arose among the personnel of a large organization and a committee was appointed to hear the arguments on both sides of disputed questions, summarize this argument and present recommendations to the head of the organization for his action. After the plan had been in operation a short time I was informed by members of the organization that in almost all cases the presentation of the argument clearly demonstrated the proper course to pursue. Irrespective of the relative merits of the contestants as debaters, the inherent strength of the right side became manifest and the weakness of the other side was emphasized by the arguments of its adherents.

It is believed, Mr. President, that the same condition will obtain with the papers presented here to-day by representatives of the various manufacturing interests. The strength or weakness of the contentions brought to your notice will be more apparent for their discussion here.

Mr. President, as a mark of the appreciation on the part of the manufacturing interests represented here of your courtesy in establishing Manufacturers' Day, I have been asked to read this resolution:

"Whereas, The Association of American Dairy, Food and Drug Officials has generously set aside one day of the valuable time of its Eighteenth Annual Convention, and which has been designated as 'Manufacturers' Day,' for the purpose of permitting the food and drug manufacturers to express, and place on record in the proceedings of said convention, their views on matters of vital concern as between them and the food control officials; and

"Whereas, The food and drug manufacturers aforesaid are not unmindful of the importance of this action on the part of said officials and fully appreciate the sacrifice the said officials have made in granting this special time; now, therefore, be it

"Resolved, That the undersigned representatives of food and drug manufacturing industries who have had the honor of attending this annual convention express a vote of thanks to said Association and the Executive Committee for the special favor conferred by the setting aside of said Manufacturers' Day, and particularly we express our thanks to the Honorable James H. Wallis, president of said Association, under whose administration was originated the get-together thought, and who, while never failing to perform to the letter the official duties imposed upon him by his law, has yet been able always to see and to perform that duty in the light of reason and of entire fairness to manufacturers."

(Signed)

W. C. KIRK,
Representing Armour & Co.
FRANK GORRELL,
Secretary National Canners' Ass'n.
C. E. M. NEWTON,
Reid, Murdock & Co.
JAY MILLER,
Sprague, Warner & Co.
W. S. CUTLER,
American Manufacturing Ass'n, Corn Products.

CHARLES E. JAQUES,
Jacques Manufacturing Co.
DANA T. ACKERLY,
National Wholesale Groceries Ass'n.
THOS. E. LANNEN,
National Confectioners' Ass'n and Flavoring Extract
Manufacturing Ass'n.
F. L. DUNLAP,
Victor Chemical Works.
CHAS E. CASPARI,
Monsanto Chemical Works.
B. A. BADGER,
Of Curtice Bros. Co.
W. M. McCORMICK,
Chamber of Commerce of the United States.
ALONZO H. STEWART,
Counsel for National Ass'n Retail Druggists.
L. F. BROWN,
Sec'y American Feed Manufacturers' Ass'n.
B. L. MURRAY,
For Merck & Co.
WM. T. HANKEY,
The Cleveland Fruit Juice Co.
EDW. H. BROOKEY,
American Corn Co., N. Y.
CHARLES W. DUNN,
American Specialty Manufacturers' Ass'n.
WALTER JEFFRIES CARLIN,
National Ass'n of Ice Cream Manufacturers.
A. V. H. MOREY,
Sears, Roebuck & Co.
A. P. HUSBAND,
Millers' National Federation.
LEVI COOKE,
General Counsel to the National Wholesale Liquor
Dealers' Ass'n of America.
W. H. WATKINS,
National Aniline & Chemical Co.
C. B. MOREY,
Larkin Co.
W. G. SHERER,
Scherer-Gillett Co., Manufacturer Sanitary Grocery
Counters.
H. L. HARRIS,
Pacific Coast Borax Co., New York.
JOHN GREEN,
Sec'y National Ass'n Retail Grocers.
T. B. WAGNER,
Corn Products Co.
I. J. RIORDAN,
Alart & McGuire Co.
E. V. GROSVENOR,
Tomato Products Co.
CRAIG ATMORE,
Mince Meat Ass'n.
MERRELL-SOULE CO.,
By W. B. Cherry.
EDMUND W. TAYLOR,
For E. H. Taylor, Jr., & Sons.
J. FRED WINDOLPH,
American Ass'n Pharmaceutical Chemists.
CASSIUS WAY,
Borden's Condensed Milk Co.
C. K. HATFIELD,
Sec'y Panama-Pacific Exposition.
P. RUNKEL,
The Weis Mfg. Co.
JOHN GORDON,
Sanitation Expert.

GEO. DEFREN,
Brewing Chemist.
WALTER A. NEALY,
Representing Jos. Middleby, Jr., Inc., Boston.
ELLIS L. HOWLAND,
Chamber Commerce, N. Y. City.
PAUL PIERCE,
Editor National Food Magazine, New York City.
HERMAN B. MEYERS,
Editor American Food Journal, Chicago.
W. H. KILLIAN,
President Oyster Growers' Ass'n of North America.
President Wallis: This will appear in our official
record.

I would like to state that Mr. Sullivan is on the
program, representing the Illinois State Food Stand-
ards Commission, the legal authority for food stand-
ards in that state, and he was assigned a subject on
the program. I see Mr. Sullivan is in the room, and
I presume can dispose of the paper before we go for
the automobile ride at 4 o'clock, and I will therefore
call upon him now.

SHOULD FOOD STANDARDS EXCLUDE OR EN- COURAGE CHEAP BUT WHOLESOME SUBSTITUTES.

MR. T. P. SULLIVAN.

Gentlemen:

I want to congratulate you upon the efficient work the
food control officials of this country are doing, and to say
that the day when impure and unwholesome foods can be
sold openly is gone—never to return.

I believe it would be opportune on my part at this time
to say that this is the first gathering of the dairy, food and
drug officials I have had the pleasure to attend. My pres-
ence here today is accounted for by the fact that his ex-
cellency, Governor Dunn of Illinois, saw fit to make me a
member of the Illinois Food Standard Commission.

Illinois is the only state in the Union having a Food
Standard Commission. This law is considered by many a
good one, and in the line of progressive legislation.

I stated a minute ago that this was the first convention
that I have attended of the food control officials of this
country, but, however, it is not the first food convention that
I have attended. I have been very active for years in retail
grocers' organization work, and but a few years ago had the
honor of being the national president of the Retailers Grocers'
Association of the United States.

I have spent all my life behind a retail grocer's counter
handing out food and food products to the consumers, con-
sequently I have obtained at very close range a knowledge
that is of great value to me in my present work on the Illi-
nois Food Standard Commission.

In dealing with my subject, I may possibly be influenced
by my occupation as a retailer, and may at times become
enthusiastic in the cause of the consumer. Should I fall
into this line, I want you gentlemen to realize it is but
natural, as forty years as a food purveyor naturally makes
me think and talk along these lines.

Wholesome foods and food stuffs, whether substitutes or
competing food products, should be encouraged, as they tend
to reduce the cost of living. Extreme and erratic pure food
legislation operates to prevent the use of cheap but whole-
some foods and should be discouraged as these laws ulti-
mately work a hardship on the consumer. If a food substitute
is harmful, its sale should absolutely be prohibited.

After listening Tuesday to the sane and sound reasoning
of Chief Alsberg of the Bureau of Chemistry, on the sub-
ject assigned to me, I find very little room left for me to
dilate upon, and I believe the answer to the problem as to
whether pure and wholesome food substitutes should be en-
couraged, is yes. However, I have in mind a few prominent
instances where unnecessary hardships have been placed upon
popular and wholesome foods—possibly some of these prod-
ucts are paying the penalty of previous transgressions. The
most prominent in the class of wholesome and highly nu-
tritious foods is oleomargarine, a food competing with butter,
a dairy product for a position in the commercial world.

Butter enjoys the advantage over all other food products
in that it may be artificially colored without stating so on
the label. Oleomargarine, a competing food product or a

butter substitute if you so wish to call it, is not permitted to be colored unless carrying a tax of 10 cents per pound. This product is conceded to be wholesome, I think by all, and has withstood the most searching investigation as to quality and nutrition and sanitary manner of manufacture, and has been found to be pure and clean. Let us for a moment look into this product and see what the component parts are.

First you find that one of the principal ingredients is oleo oil, an article of commerce that is obtained from the fats of young steers, pressed by a heating process so that only the clear, limpid oil remains.

Second we find used in this product imported peanut oil and domestic cottonseed oil, leaf lard rendered at a very high temperature, salt, milk and butter. Here we have a list of ingredients that are used daily in some way or other, separately, in the preparation of foods, and when so used there is no restriction, but when blended together as a whole, they are subjected to penalization.

Gentlemen, I have stood behind my counter many times when butter was bringing very high prices, possibly forty-five and fifty cents per pound, and observed many a poor

hind the grocer's counter, and there is no use shutting your eyes to the situation as it is today, a situation that demands remedial legislation.

There should be a committee appointed during this session to devise some plan wherein the consumer may enjoy yellow oleomargarine without paying any additional tax, beyond what is necessary to produce sufficient revenue to maintain the proper supervision of the sale of this product. I believe that people should get what they buy, and not something else. This applies to all classes of dealers, whether he be a hotel keeper, a restaurant keeper, a retailer or a druggist, and I would favor a law that would place in jail anyone who would fraudulently substitute—as a fine has no terror for this class of citizens.

Corn syrup is a wholesome and popular product that has made tremendous strides into popularity, so much so that it has practically displaced cane and beet sugar syrup for family use. Why? Because people want it, and still we find some official opposition to this product, principally on account of the name.

The vinegar law of many states seems to be enacted with a purpose in view of building up the cider vinegar industry at the expense of distilled, which may be grain or sugar vinegar. I will give you an illustration of what happens quite often between consumer and dealer in Illinois. The Illinois law assumes that a person asking for cider vinegar without any qualifying words should be given cider vinegar. We try to obey the law, and in doing so, have many times been compelled to return the cider vinegar to the barrel and to give the consumer white distilled vinegar.

Gentlemen, there are many other conditions which I might take up, but I think we all agree that wholesome and pure food substitutes should be encouraged. I further believe that co-operation between food control officials and food manufacturers will eventually play a very important part. As after all that is the ideal situation. In Illinois, right now, we are having Ice Cream Manufacturers' Association, through their attorney, assist our food department in the prosecution of infraction of our ice cream standard. Gentlemen, let us have more of this class of co-operation. We will then have attained the desired end.

FRIDAY, JULY 17, 9:30 A. M.

Presiding: Hon. James H. Wallis, President.

President Wallis: Gentlemen, the convention will be in order. I have two announcements to make. Mr. John E. Linihan, president of the United Cereal Mills, Ltd., and former president of the American Specialty Manufacturers' Association, writes that he regrets exceedingly that an unexpected pressure of business will detain him in Chicago. Mr. Linihan wishes to express his sincere appreciation of the invitation extended by the Association of American Dairy, Food and Drug Officials through its esteemed president, the Honorable James H. Wallis, and desires to co-operate in every way.

I am also in receipt of the following telegram from Niagara Falls, N. Y.:

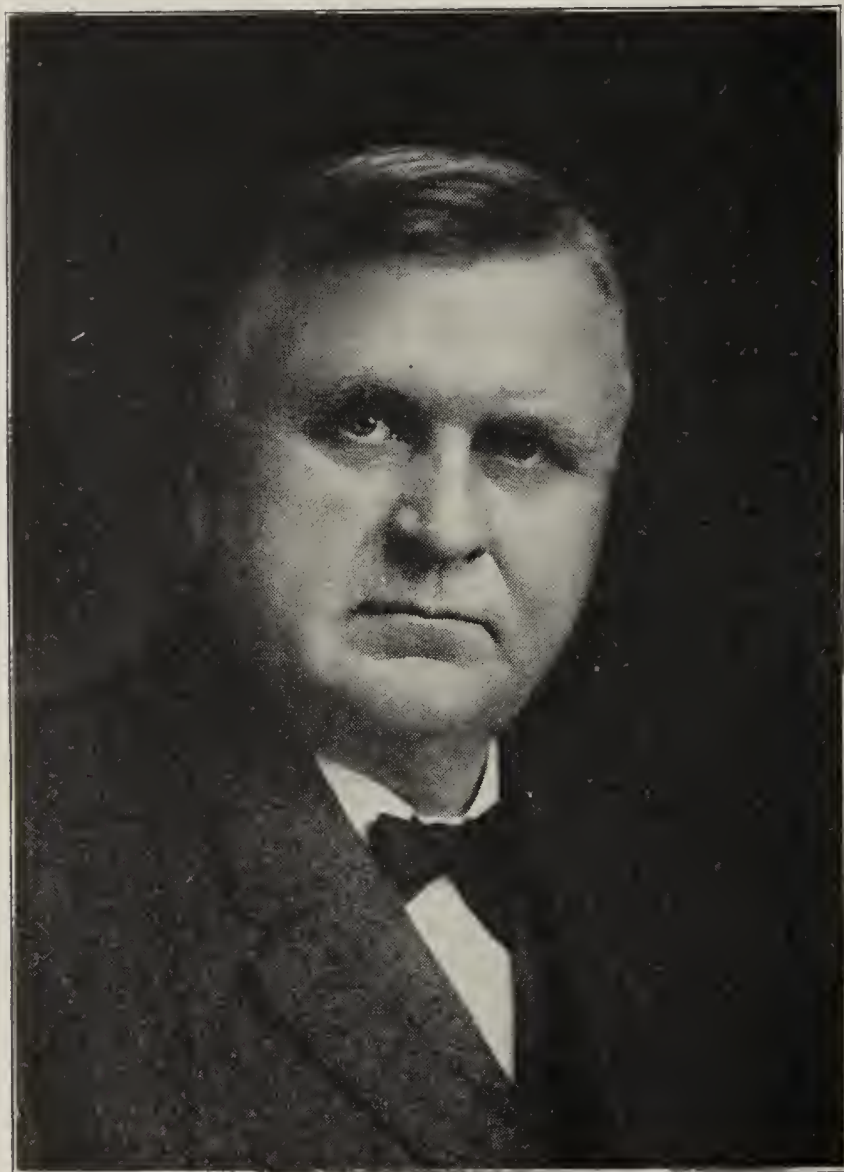
"Regret exceedingly that matters in connection with the starting of our new shredded wheat factory here make it out of the question for either Mr. Mason or I to get away. Please express my sincere regret to Mr. McCormick and Mr. Wallis. Regards for them and for yourself, in which Mr. Mason joins.

"A. J. PORTER."

Now is Mr. Killian present? While they are hunting for him we will listen to Mr. Fred Windolph of Minnesota, who speaks for Mr. Stauffer on behalf of the Association of American Pharmaceutical Chemists.

Mr. Fred Windolph: Mr. President and Gentlemen of the Convention: I must ask your indulgence for appearing before you as I do, because circumstances have arisen which have made it impossible for Mr. Stauffer to be present, and I have been sent as a substitute for him.

Now I am an old druggist, and, speaking as a druggist, we are of course a little bit sensitive on the subject of substitutes. And I want to say now that I never have claimed that the substitute is just as good as the original. I regret very



MR. T. P. SULLIVAN.

housewife look at the tub of butter, yellow and inviting, and then look at her pocketbook and then look at the other package of white oleomargarine, and say to me: "If I buy that white oleomargarine my children will not eat it, and I cannot afford to buy butter at these prices." If you had seen these people as I have time and time again, you would feel as I do, that there has been a rank injustice to the poor people of this country, to the poor consuming masses of this country, when you deny unto them the privilege of having on their tables a wholesome, nutritious yellow product, oleomargarine without penalization.

As a retail grocer I have lost business, good butter business taken away from me by some irresponsible person, posing as a farmer or a farmer's brother selling direct from his farm to the consumer, selling the consumer oleomargarine for butter. This is a very common custom in Chicago nowadays, particularly so in the winter months when butter is high. You food officials, who are not in close touch with the situation, have no conception of the tremendous amount of illicit oleomargarine that is sold in this country for butter by irresponsible dealers. I am giving you facts from be-

much that Mr. Stauffer cannot be here. He was unable to come because of the very serious illness of a member of his family and so it was only at the last moment that word was sent to me that I should come and what Mr. Stauffer may have prepared has not reached me, so I will say just a few words and make them very brief.

I am to speak to you today on behalf of the American Association of Pharmaceutical Chemists and, as I understand it, with reference to the relation which might exist or should exist between your honorable body and the manufacturers of medicinal products. The very able remarks which were made yesterday with reference to food products are applicable in a large measure to the conditions which exist in the manufacture of pharmaceuticals. But in addition to that we, as drug manufacturers, have problems which possibly the food men have not. And in speaking of "drug products" I do not refer to what are ordinarily known as patent medicines.

Our association is the oldest association of manufacturing pharmaceutical chemists. We were the first ones to organize for our mutual benefit and for the advancement of the science of pharmaceutical manufacturing.

I say we are the oldest, but even that does not date our beginning back very many years because it has only been within a few years that the manufacturers have gotten together and discussed the problems which enter into their daily work.

We make the preparations which are used by the physicians and which are prescribed by physicians for the alleviation of human suffering. For this reason we make thousands and thousands of pharmaceuticals and these are made in various forms—pills and tablets and other forms which the doctors use in their practice daily. And, having so many items to handle, so many formulas to make up, so many drugs and constituents to handle, we have many problems which cannot come to the manufacturer who specializes upon but a single thing.

If we were manufacturers of patent medicines it would be a simple matter for us to learn how we should label our goods and then our troubles would be over.

But with us we have, in the first place, the various medicines which enter into these preparations. They are not only chemical but they are vegetable constituents and they come to us from all corners of the earth. They come to us in varying conditions. It is necessary for us to standardize our raw materials and we have our own difficulties there, as I am sure those of you who have anything to do with the importation of these chemical and vegetable ingredients will agree. We have our troubles in getting the proper materials to start with and then we have our troubles with them in the course of manufacture. We find it necessary to have control departments, employing a corps of chemists to assay and analyze the drugs which we use and then to pass upon the finished product. We have all these troubles to contend with, and, after that, upon the market. After we have sent them to the physicians or druggists who may use them. We have our troubles even after they leave our hands, so that you see the manufacturers' lot is not altogether a happy one. And when, added to these troubles, come questions of interpretations of the law, which must be decided as to the proper labels for goods, there we are confronted with a condition which makes us welcome very heartily indeed the sentiment which I have heard expressed here yesterday and which, coupled up with what has been said with reference to uniformity of laws, making the various state laws conform to the federal laws, encourages us very much so that we feel that this is one of the most important matters which could be arranged between your body and those who are manufacturing these goods—that there should be uniformity in the laws throughout the country so that when we get an answer from one state or federal government we will know what is the proper labeling for our products—so that when we get one answer we will know that that same answer will suffice for all.

We are more than glad to see this spirit manifested. And I was very much pleased to hear the discussion in reference to the net weights and measures law, the disposition that was shown by the state commissioners to wait for the national government to lay down its regulations for tolerances and so on before they make them in the states, so that when we do have them they will be uniform everywhere.

Then there is another matter which has been brought up here which gives us great hope and faith, makes us believe that there is balm in Gilead (?), and that is the constructive work which has been suggested as being carried out by you gentlemen and the departments over which you preside for helping the manufacturers not only in the decision on technical questions in reference to labels but also as to processes and

in the conservation of waste products and all of those matters which enter in the practical manufacture of goods. In that you are undertaking a grand work, in my opinion, and it is one which will not only redound to the benefit of the manufacturer but to the country at large. The most excellent paper by Dr. Barnard last night was a wonderful contribution along those lines. Dr. Kebler of the Bureau of Chemistry has done a great work for the manufacturers of pharmaceuticals in his very efficient investigation into the manufacture of tablets. He has written a wonderful paper on that which is being published now in the Journal of the American Pharmaceutical Association and which will undoubtedly be of great benefit to every manufacturer of tablets in the country, and the work of the federal department in giving the help they can give to the methods of manufacture for other articles will undoubtedly benefit the manufacturers of this country, and I wish to thank you gentlemen for the most excellent information which you put into these bulletins which you send out from time to time. My only regret is that we don't get more of them from more of the states. You gentlemen are investigating conditions which affect our industry largely and you have the means back of you to disseminate that information, and I am sure you must be accumulating information all the time which would be of vast benefit to us if we could get it. All of these things are helpful and encouraging for the future.

The association which I represent has gone into existence for this very purpose of bettering the production of the articles of all the manufacturers who belong to that association and, really, for the bettering of all who are engaged in the manufacture of medicinal products. Our aim is to get better raw materials, to eliminate waste, to improve our methods of manufacture, and to make better goods where we can, to raise our standards—and we have found that all this has been of great benefit to us individually. We were all competitors, of course, and in days gone by we did not meet with one another, we did not consult one another. We did not feel that we could associate very much with our competitors, in fact, but we find now that we have met each other and gotten together we find there is a great deal we can do for each other and in this association we have accomplished a great work, and if in the constructive work which you contemplate we can co-operate with you gentlemen, if that is carried out the work will be magnified and redound not only to your good and to our good but to the good of the people of the country at large. And, feeling, as I do, that there is a light breaking which helps to guide our pathway, which will perhaps lighten our burdens, I wish to thank you for permitting us as manufacturers of one particular line to appear before you today, and I wish to join in all the good words which have been said by the manufacturers here who have spoken before me in extending to you gentlemen a very hearty expression of appreciation of the kindness which you have shown in letting these gentlemen present their various views on questions which may be settled, perhaps, by co-operation between you gentlemen and the manufacturers, and I wish also to say that I think we are all disposed to work in harmony with the known wishes of the gentlemen who are in charge of the administration of these laws. We all of us who were present this morning at the musical concert had a manifestation of the beauties of harmony. Those of us who listened to that magnificent concert given to us this morning could not help but be impressed with the great harmony of that wonderful organ—when it was in perfect tune, when it responded. There was a time there, though, when it did not respond, and that was a very distressing period. But when the magnificent instrument was in tune and responded to the touch of the organist I think we all felt lifted out of ourselves; we thought a little better of ourselves even, miserable sinners that we are, and certainly we thought more of our fellow men. And so in the operation of the pure food laws as they apply to the manufacturers of this country, if we can have a spirit of harmony and co-operation I believe that we will all be better men, better executives, and better manufacturers, and in that way we will all of us be doing much better and greater service for our country and by those who depend upon the industries represented here today. Gentlemen, I thank you.

President Wallis: Is Mr. Killian in the room? We will hear from Mr. W. H. Killian, president of the Oyster Growers' and Dealers' Association of the United States:

Mr. W. H. Killian: Mr. President, and Members of the Convention: I bring you greetings and felicitations from the Oyster Growers' and Dealers' Association of North America and

their sincere thanks for this opportunity of again renewing friendships and getting on a better basis of understanding relative to the matters that concern us and the matters that your duties compel your attention to.

I do not propose to encroach upon your valuable time but to get briefly to the point.

First, our association and what it stands for and in what respect it should of necessity be in close relation to your organization.

We are purveyors of a food that to the great American public is destined to become one of its chief staples. I lay claim to modesty, too, when I make this seemingly sweeping assertion, for the oyster industry is but in its infancy and its development is in fact so full of possibility and promise that only those who have some conception of the bays and sounds can be expected to accept my assertion and agree with me.

That fact that this immense production can be conserved and nature aided in its increase, that but perhaps not 25 per cent of the whole population of this country have been regular users of oysters, while perhaps about 50 per cent are not users of oysters but will be, that it is the one food that has not been a party to the advance in the cost of living, its price not having materially changed in years, that it is, aside from being one of the very best, one of the most economical in that it affords the least possible waste in preparation of any of the meaty foods, having neither skin, bone or other waste in dressing to be eliminated and reduce the net weight of edible food when purchased by the consumer, that it is a very nutritious food and is easily digested—all tends to stamp it as a coming factor in the food supply of the future.

Therefore we shall come more and more into relation with you, Mr. Food Commissioner, and as our association is in existence to seek out and effectively apply every possible means of putting this food away up the scale of high class, we proffer our co-operation to your organization and to you as individual state officials in your respective capacities.

Mr. President, and gentlemen of the convention, we need your co-operation, and we want it. We mean to co-operate with you and we can say in this connection that we are effectually co-operating with the federal authorities. We have established, we are proud to say, a very good credit with the department presided over by Dr. Alsberg, and we hope to do the same with you.

Would you know with whom you are asked to co-operate? I would say that a man is known by the company he keeps. If he is a member of the Oyster Growers' and Dealers' Association he possesses high credentials, for when he seeks to affiliate himself with this organization he indicates that he wishes to help improve and increase the good name of the oyster, the very thing that you gentlemen are charged to see is done.

Gentlemen, I hope that I have succeeded in satisfying you that there exists an organization composed of a large enough element inclined to accomplish the uplift of the food it deals in to merit your consideration and your co-operation. If I have, then let me say that should you in your individual capacities, or as an organization, have occasion to criticize or to find anything remiss that relates to oysters or their handling, please don't condemn without a fair trial. Please don't condemn, but confer. I will promise you for our association that an effectual remedy will be had more speedily and more permanently than by any recourse to publicity, which can never remedy the cause but can cause untold harm to our industry.

Many unwarranted things have been said of the oyster which have done a great injustice to those who have honestly striven to do everything possible to make for public confidence. We have no wish or desire to shield any bad practice nor protect any one who indulges therein, but when the large majority of an industry is the better element which wishes to aid the authorities to bring about an ideal condition, we respectfully submit that it is but due them to confer with them to accomplish the desired end.

I invite you wherever you may find anything that warrants your official attention to report it to our association and we will get at the root of the matter in short order and extend to you every possible help to adjust and remedy it.

We, like every other industry, have our problems. We seek to solve them as successfully from every point of view as is possible. We feel that with your valued co-operation many of them can be more rapidly and much more satisfactorily solved to the great benefit of the American consumer, for the sooner that the oyster has your unqualified approval, the sooner will that consuming public establish them as a regular food staple. This is what we are aiming at. This we ask you to co-operate in. Your official duty is to see that the public is supplied with a wholesome food at an honest value.

These are our ideals. Now since we are on common ground, let us work together more closely.

President Wallis: We will now listen to a paper by Mr. John A. Green, secretary of the National Retail Grocers' Association, on "How Food Legislation Has Helped the Retailer."

Mr. John A. Green: Mr. President and Gentlemen of the Association: I know that I have missed a great deal in not being able to be here during the last two or three days, but the Ohio Retail Grocers have been holding their convention and had I been here I could not have been there and that was more important to me, and possibly to them, than that I should come here at the beginning of this convention.

I am certainly glad to look into the faces of the Food Commissioners of the United States. There is no body of men in whom we are more interested and, I suppose, who are more interested in us, than the Food Commissioners of this country.

HOW FOOD LEGISLATION HAS HELPED THE RETAILER.

MR. JOHN A. GREEN.

Gentlemen:

I represent the only factor that all of you can lay your hands on and consequently the goat (if you will allow the expression) for all the evil in the trade of food distribution.

Ever since the Pure Food Law went into effect the retailers have had to be responsible for the manufacturer, importer, jobber and everyone else who supplied the market with food for consumption. He is the one man whom you could readily reach and consequently furnished you with the coin to run your departments through the fines inflicted upon him.

Looking at the question from this point of view it would be very hard indeed to see where the benefit to the retailer would come in.

In spite of these facts, however, there is nothing that has been done that is more beneficial to the trade than the passing of the Pure Food Act.

After some years of antagonism between the food authorities and the trade we have arrived at a place where a spirit of co-operation between these two factors prevails and we are now working together for the purpose of bringing about results that will protect the consumer from your point of view and our customer from our viewpoint.

The passing of the Pure Food Law brought about a revolution in the food trade. The stuff that was being put on the market as food for consumption was in many cases unfit for the human stomach.

I recall some blackberry jam offered me in pint mason jars to retail for ten cents. I took a sample and had it boiled down under my own supervision and, after some minutes of boiling, poured it out on a large pie tin. When it was perfectly cold I took it up and I could bend it backward or forward without breaking. An ordinary laboring man or growing boy would eat at least half of that during a meal.

This is only one of many articles that came under my own supervision.

Our organization took part in the agitation for a national bill. Mr. George Sherer of Illinois, our national president, went to Washington in 1903 and appeared before the committee having the matter in charge. I made my first trip there in 1905. At this time we had Dr. Wiley, the director of the Bureau of Chemistry, at our national convention in Cincinnati and we never let up till the bill became a law.

Immediately after the passage of the bill our retail grocers' association had a large card printed and given to their members which said that we were members of the Association and all goods kept in this store complied with the requirements of the new law and nothing but goods that would stand the government test as to purity were sold by us and all goods were guaranteed under the Pure Food and Drugs Act. It was the greatest advertising card then and it is the greatest advertising card today that any retailer can possibly use.

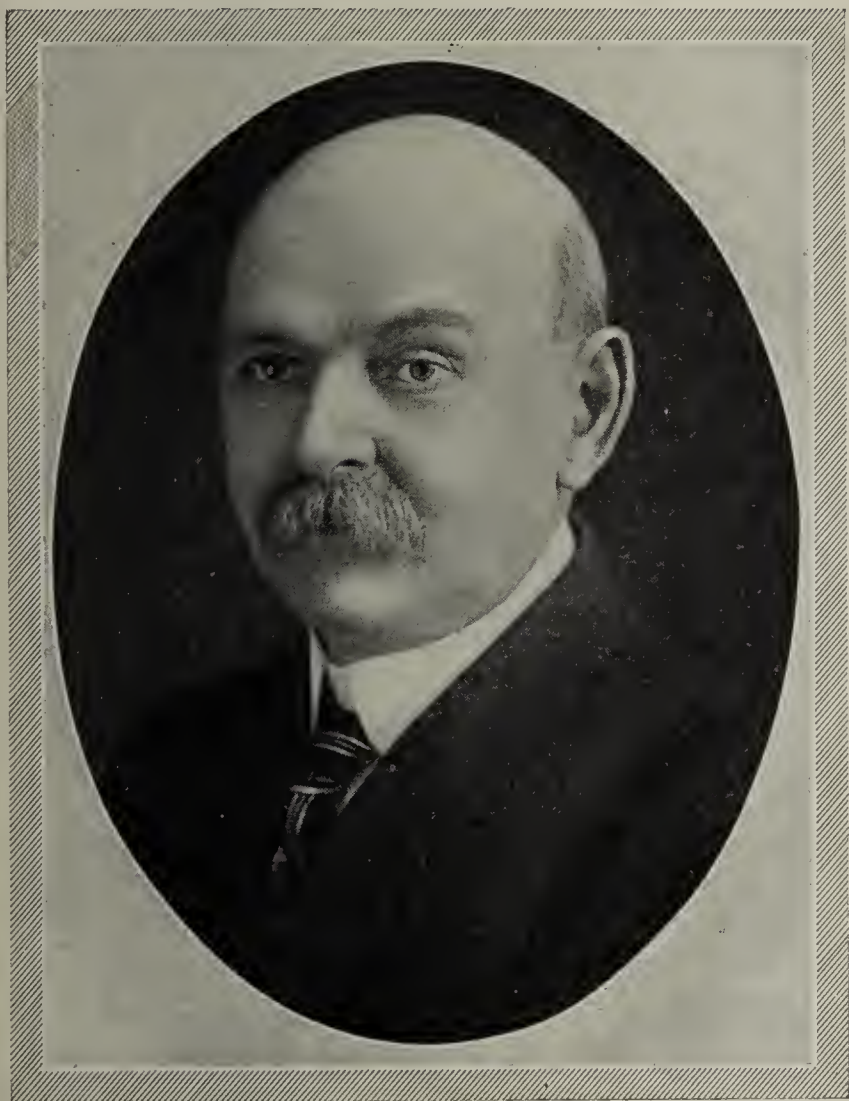
My position in regard to the Pure Food Act is well known I think to every food official in the country. Our organization has no sympathy with any one who will try to evade the law. The fact that we have pure food and none other that

will meet the requirements of all food officials is an incentive for the consumer to patronize my store and any one trying to evade the law is not only doing the trade an injustice but is casting a reflection on all other men engaged in it.

The law has helped to stimulate pride in the business and that fact linked together with some other adopted improvements has encouraged a better element than formerly to enter the grocery business.

Uniformity of food laws in all states is an absolute necessity. Retailers in some states are forbidden to sell goods that can be shipped to the consumer from another state, thus working an injury to the business men of the state. That is the kind of legislation which has not been helpful to the retailer. The recent decision in regard to covered hams and bacon is going to create friction. Ohio holds the law does apply to hams and bacon. The Federal authorities rules it does not.

There is much to be done and no body of men can help to improve our business more than you can.



MR. JOHN A. GREEN.

I am sure with all forces interested working together that we can pass such laws as will be beneficial to the consumer and will enhance the welfare of business. The place to accomplish this is in Washington and then have all state laws conform to the Federal law.

Before any legislation is enacted in the future I think it would be well to canvass the trade through the officers of the National Associations, manufacturers, wholesalers and retailers, especially the retailers, and if there be any serious effects to follow it would be understood and the anticipated bill be amended and agreed upon so that there would be no friction or opposition but instead a friendly striving for the attainment of the desired purpose in which we are all agreed.

There is no body of men who can accomplish more by joining forces than the food officials and the distributors of food. By protecting the consumer in the proper manner you undoubtedly benefit the retailer. Maybe you are not to blame for the errors of your deputies or their over-officiousness, but I would earnestly request that you take into consideration the character of the merchant where there is a possibility of doubt. In that way you will encourage a spirit of helpfulness and co-operation.

You will readily understand the impossibility of the retailer keeping a chemist in his store to tell him what will stand the inspection of a department officer: all he can do

is to get a guarantee in good faith. He, to a certain extent, is dependent on the manufacturers or wholesalers to send him goods under the manufacturers' guarantee and when your officers question or do not accept his guarantee then he is lost.

Everything that can be done is being done through our organization to increase the consumption of pure foods and to work in conjunction with the food and drug officials throughout the United States.

We welcome you to our state conventions and if you will attend them you will get a better insight into the intentions of the retailers than in any other way. I have met a number of you in different states at our meetings and I know it has been a satisfaction to those of you who have attended to see the anxiety and intent to co-operate with you in the furtherance of your plans in carrying out the intent of the law.

We have the net weight law which is another step in the right direction. Much of the blame for impure food and short weight containers has been lifted from our shoulders and we are now enjoying the confidence of the public because of our attitude in pushing legislation along these lines.

The bill providing for the grading of apples as well as for the regulation size of the barrel is another great improvement and has not only been of great benefit to the retailer but to the public in general.

A bill is now pending before Congress providing for the net weight of contents of a barrel or box of fruit or vegetables, and should become a law.

If the state and city laws could be brought to conform exactly with the federal law we would feel that we would have about all that could be asked for in the way of food legislation.

There is some contention in regard to measures or selling by weight. For many years I never used a measure for anything but apples and potatoes—selling everything by weight, box or count. It is the only just way, the consumer knows what he is getting and the merchant knows exactly what he is doing.

Let me say again, most emphatically, if you wish to carry into effect the food laws already on the statutes or have new laws passed that are necessary for the welfare of the consuming public, take into your confidence the manufacturer and jobber, but especially the one factor who deals directly with the people and you will find him ready to do anything that will help you to bring about such legislation as you desire.

When we have the laws rightfully administered they are very beneficial, but when we suffer through arbitrary action and prosecution then they are not only offensive but they are not filling the purpose for which they were adopted.

The last two years the retailers throughout the country have taken quite an interest in politics and from now on will be a factor to be counted. We find in order to obtain such consideration as we deserve so that we can help in beneficial legislation we must move as a unit.

I trust that our meeting together here will be of great benefit to us all; that we shall better understand each other; that we shall from this day forth go shoulder to shoulder in the furtherance of such laws as will benefit manufacturer, distributor and consumer alike.

I pledge to you the loyalty of the retail grocers of the United States and assure you that their influence will always be found on the side of right and justice.

Mr. Green (continuing): We are all trying to do the right thing. Believe we are honest and that we are trying to do right. Let us believe some of the other fellows are right and then we will have a basis to start from and if we can do that I haven't any doubt but what we will come out right. We ought to get together. Then we would get what we wanted immediately—there would be no question about that—and everybody would be better satisfied and we would all be working for the one purpose, i. e., the benefit of the consuming public and the consuming public comes right to us, you know. What would we do if it were not for them? We have only that one factor in our trade. How to deal to the best advantage of the public, and the best advantage of the public is our success. I wish you would remember that.

I was very much pleased yesterday to see that the

food commissioner or his first deputy attended the Ohio state convention of retail grocers and took up the entire afternoon addressing them, much to the benefit and satisfaction of the 350 retailers who were there in attendance at that meeting. Nothing but the very best results can come out of a conference of that kind, and if there is any place where you gentlemen should be, in my opinion, it is at conventions of that kind.

We are now seeking to have a bill passed asking for net weight of the contents of a barrel of vegetables and I trust it will soon become a law.

Now I trust that you men will come to some conclusions as to what is best for every state and then let us have one law and then there will be no question as to which law is right and which is wrong. It is a very deplorable state of affairs when the city regulations are antagonistic to the state law and the state law antagonistic to the federal law.

And I trust you men will take a great interest in politics. I think it is time the business men of this country were awakening to their opportunities. We ought to send men to Congress that will make good laws. You know and I know that we are sending men to Congress that never should be sent there, and yet we complain about the kind of laws they make.

I thank you.

President Wallis: We will now listen to Dr. T. B. Wagner of the Corn Products Company.

THE RELATION BETWEEN FOOD MANUFACTURERS AND FOOD COMMISSIONERS.

DR. T. B. WAGNER.

Address by T. B. Wagner, delivered at the Eighteenth Annual Convention of the Association of American Dairy, Food and Drug Officials, at Portland, Me., July 17, 1914.
Mr. President and Gentlemen of the Association:

In responding to the invitation of your president to address this convention, I wish to say first of all, that it is not my intention to hold a brief either for the food commissioners or for the food manufacturers; they are fully able to take care of themselves. I do want to speak, however, on some features of pure food, and upon the enforcement of so-called pure food laws, which have come under my observation during the last twelve years, and which I beg leave to commend to your earnest consideration, believing that they are well worth being brought to your attention. What I shall say is submitted not in a spirit of criticism, but in the belief that a frank discussion of the manufacturer's side of the pure food question will serve to lay a broad foundation for real construction work for food commissioners and food manufacturers—that I think is the spirit which governs your "Manufacturers' Day" at these conventions.

Like all other industries, the manufacture of food products has undergone vast changes, and has increased tremendously in volume, and therefore in its importance among the industries of this country. Due to this advancement new products are being constantly put before the public, and one might expect that their manufacture would meet with unrestrained encouragement. Should not food officials be in a receptive mood as to new ideas bearing upon the manufacture of food products? What do we find, however? Not always, but very frequently, a tendency on the part of food officials to restrict the manufacture of new food products by unreasonable regulations. I do not wish to be understood as finding fault with the laws, for, as a rule, they are easily complied with, but what I have in mind is the tendency of discouraging the manufacture of a new food product for no other reason than that it is something different from what grandmother used to make. The followers of such a policy do not seem to bear in mind the fact that conditions in grandmother's days were quite different from what they are today. Concentrated population within a restricted area of a large city did not exist in her days, and the question of securing the daily food supplies for an enormous population had not become serious, for grandmother was able to produce on her own property most of the food required by her

family. In our large cities, however, people depend primarily upon the manufacturers for their daily supply of food.

If a manufacturer decides to put out a new food product in the development of which he has spent a great deal of time and energy, and has called into service the assistance of the best specialists and experts obtainable, and if he backs up this new product with comprehensive and costly advertising, he may find his efforts checked by severe so-called rules and regulations. For instance, a food official will notify a manufacturer that under his rules and regulations the manufacturer must disclose upon the label the percentage of each ingredient present in his particular product. The food law, under which this food official is supposed to perform his duties, does not contain any such restriction, yet, if the attention of the food official is called to this fact, he maintains that the legislature has given him the power to promulgate rules and regulations governing the sale of food in his State, and that acting under such authority, he has he has promulgated certain rules and regulations which require the percentages of ingredients to be stated upon the label. Obviously, the food official overlooks the fact that the legislature gave him the right to issue rules and regulations only to that extent that those rules should apply solely to existing provisions of the law, and he overlooks the further fact that he is trying, through his rules and regulations, to read something into the law which the legislature did not put there. In other words, the food official, under the disguise of rules and regulations, assumes the functions of the lawmaker; he frames the laws, he passes them, and finally by affixing his signature he makes them effective—a much less complicated procedure, indeed, than is usually followed in the legislatures, where a bill has to be passed by two houses, and even after having been passed, still runs a chance of being vetoed by the governor of the State.

Now, the manufacturer is perfectly willing, even anxious, to comply with the law, but what is he to do, if he is compelled, not to comply with the law, but to comply with what the food official thinks *ought* to be the law? The food manufacturer does not wish to break the law, yet he may not want to do something that the law does not require him to do. Upon consulting the law, he finds that it directs specifically that when in the opinion of the food officials an article of food appears to be misbranded or adulterated, such fact should be forthwith certified to the nearest district or county attorney for prosecution. In spite of these specific directions, does the food official always act in conformity therewith? Rather, does he not instruct his inspectors to see the retailers and tell them that certain articles of food which the retailer has on his shelves are illegal, and must not be sold? And does he not go further and publish in the "Bulletin" of his department, his "findings," branding therein publicly this particular article of food as illegal and holding the manufacturer up to public scorn? In other words, the food official in such a case acts as the prosecuting attorney, judge and jury. "Illegal" means contrary to law, not in conformity with the law, outlaw; and under our constitution the question as to whether an act is within or without the law, is delegated to the courts to determine. The decision as to whether an act or a thing is legal or illegal is left to a person who is trained in and conversant with the law. I do not believe that anyone will contend that the food official is a person clothed with that authority, and yet we find in ever so many bulletins a steady reference to certain articles of food as illegal. Is it fair, is it right, that a pure and wholesome article of food be classed as illegal and the manufacturer be held up to public scorn as a lawbreaker, without having had his day in court? Is this not against our spirit of fair play? If a man undermines the credit of another by circulating false reports about his financial responsibility, such an act is an offence in the eyes of the law, yet is it a greater offence than undermining the standing which a manufacturer of food products enjoys in his community and among his trade? I remember a case a few years ago in one of our Western States, where the food commissioner or his deputies served notice upon a small manufacturer that at a certain hour of a certain day they would enter his place of business, seize certain articles of food and dispose of them, as they claimed "according to law," without the manufacturer having had his day in court. Is this not a flagrant violation of the fourteenth amendment of our Constitution? Needless to say, the property never was destroyed as proposed, because the courts intervened by injunction and not only prevented the destruction of the property, but went further, and, upon hearing the merits of the case, gave the property a clean bill of health.

Let us now consider the effect of "conviction by bulletin."

The retailer receives the bulletin in his regular mail, and reads carefully all that is said about different articles of food. He may run across a paragraph stating that a certain product, in which he has dealt for many years with profit to himself, which he has used extensively in his own family, and which he has come to look upon as one of the purest and most wholesome articles of food is "illegal." He assumes, of course, this to be the decision of the court, and not merely a layman's opinion. What effect has this bulletin notice upon him? You know the answer, for he starts out immediately to rid his store or warehouse of his stock, with the firm resolve never to handle this product again, and he proceeds to notify the jobber or manufacturer to that effect in so many words. This, I suppose, may be exactly what the food official hoped to accomplish, but I ask you, is this a lawful procedure?

Not infrequently it happens that the premises were erroneous on which the food official based his notice to the public as to a certain article of food being illegal. Is anything done by the food official to correct his error by publishing the true facts in the next issue of his bulletin?

Is anything done that will, in a measure at least, offset the great injury done to the manufacturer, the jobber and the retailer? Worse still, these condemnatory articles are republished in other bulletins, in the trade papers, and possibly in magazines, where they may form the basis of a general attack upon the food industry.

Now, all this might be condoned provided that the consumer, of whom we do not want to lose sight, were benefited by it in any manner. But is he? His dealer, refusing to handle the goods, publicly branded as illegal, deprives him thereby of an article of food to which he has become accustomed as a part of his daily diet, which he liked, and which furnished him the food he desired to purchase.

I do not mean to say that every time a food commissioner discovers what he believes to be a violation of the law he should forthwith throw the matter into the courts. I do believe, however, that he should first notify the manufacturer of his attitude towards the product in question, and give the manufacturer a chance to be heard on the subject. When that is done, I believe, it will be found that in the great majority of cases the manufacturer will comply with the views or requests of the commissioner, and be thankful for the opportunity of doing so. But should the manufacturer feel that the commissioner is wrong, and should he wish to have the courts pass upon the points involved, it should be the duty of the commissioner to prosecute, instead of trying to drive the product off the market by means of prejudicial bulletins.

I wish it to be understood that I am speaking only for those manufacturers who want to comply with the law. I am aware of the fact that there may be manufacturers who, in choosing between prosecution and publicity would choose the latter, because of a fear that they could not stand the test of prosecution. But you as food commissioners are to be congratulated upon the fact that, owing to the good effect which the enforcement of food laws has had upon the food manufacturing industry, this class of food manufacturers has nearly disappeared.

If the courts have found a food manufacturer guilty of deliberately selling misbranded or adulterated articles of food by all means give such conviction the widest possible publicity through every available agency.

Notwithstanding all that has been said in daily papers and in monthly magazines, the fact remains that the food manufacturer desires more than the food officials, or even more than the consumer, that his product should be pure and wholesome, and that it shall be truthfully labeled. He wants to meet not only the letter of the law, but its spirit as well; and his intentions are as honorable as those of any other man engaged in legitimate business. If the food official will recognize this; if he will desist from treating the unconvicted manufacturer as a criminal offender; if he will preserve an unbiased mental attitude, and if he is willing to submit in cases where his views and those of the manufacturer clash, the question in dispute to an officer of the law, as for instance, the attorney general of his State—a practice which I am glad to say is being followed by several of the food commissioners—there is no question but that the food official will command not only the respect, but also the heartiest co-operation of the food manufacturer.

If the manufacturer and the food official will realize that there is nothing personal in their relations, and that both should serve the consumer to the best of their abilities, then, I say, the relations between the food commissioners and the

food manufacturers cannot and will not be other than those existing between honorable men engaged in any line of business. To make a business successful, the contracting parties must have respect for each other, and must stand ready to assist each other, and my answer, therefore, to the question, what should be the relations between food commissioners and food manufacturers? is that they should be those resulting from mutual respect and hearty co-operation. This is the era of the "get together" spirit, and I venture to express the hope that the relations of the food commissioners and food manufacturers may always be governed by this spirit.

President Wallis: I want to say to Dr. Wagner that his paper is a most able paper and one that brought home to me, at least, some truths, and I wish to express to Dr. Wagner my appreciation for those truths he has brought home to me personally in that paper.

We will now hear from Mr. Sherer of Chicago on "How Can Pure Food Authorities Make Our Grocery Stores More Sanitary."

Mr. Sherer: I esteem it an honor to be invited to address you on this subject and it is a pleasure to be here and of course I am a little on the outside of some of these questions which have been discussed because I appear not as a food manufacturer but as a man who is in a business which aims to co-operate with the food control authorities in seeing to it that food which is manufactured pure and properly is conveyed to the ultimate consumer in the same condition.

HOW CAN PURE FOOD AUTHORITIES MAKE OUR GROCERY STORES MORE SANITARY.

MR. W. G. SHERER.

Dirty grocery stores are a daily menace. From every grocery there goes into the home a variety of food stuffs to be eaten in their natural state or partly or wholly prepared for the table.

Until a very recent date, the degree of protection given to bulk food products has been left wholly to the merchant. Men of cleanly instincts have kept the dust away from their goods, because it detracted from their appearance and salability.

Some men, for money reasons, protected their goods from rats and mice; others found dogs and cats a source of great loss and devised protection from the attack of these animals. A few men regarded the handling of bulk goods by dirty hands as a method open to criticism by certain women customers, and substituted various utensils for the hand method for fear of losing trade.

For many long years the only argument which a retail dealer recognized as a sufficient reason for protection of bulk goods was this: "Dust, dirt and flies injure the appearance of my goods and I have to cut the price to dispose of them. Rats, mice, dogs and cats not only injure the looks, but the taste of my goods, so I must find protection against these pests for the good of my pocket book."

In days of mild competition, this might have answered, but today there is another reason. Wise men found that the flying, filthy dust of the street, the unspeakably vile house fly, the plague-carrying rat and the cat that feasted upon it—each had its separate and distinct menace to the health of the community.

These wise men demonstrated that fatal diseases were transmitted by these very agencies which the grocer had deemed injurious only to the appearance of his goods and his purse.

Other men, equally wise, drafted a law—from which we quote the following words:

"And unsanitary conditions shall be deemed to exist if food in the process of manufacture, preparation, packing, storing, sale, distribution, or transportation is not securely protected from flies, dust, dirt and as far as may be necessary by all reasonable means, from all other foreign or injurious contamination."

The law named the penalty for its violation and provided for its adequate enforcement by delegating sufficient powers to state boards of health and other similar bodies or to commissioners. With the passage of such state laws as that from which quotation has just been made, there began a *transmogrification* on a large scale of our dirty old friend, the corner grocery.

Long before any such law as this was on the statute books,

isolated grocers had worked out their individual solution of the problem, based on money-saving considerations alone.

For many years before any state had demanded that food stuffs be protected, brains were actively at work from the fixture-selling end of the proposition, devising suitable means for storing and protecting the grocer's bulk goods.

It therefore happened that the hour in which the medical authorities registered their victory in the passage of a law requiring cleanliness and protection—was the very hour when the perfected protection appeared.

Many agencies have contributed to the present state of the public mind:

The education of the people regarding germs and their transmission and workings.

The creation of a demand for and the passage of sanitary laws.

The instruction of children in the schools, and of their elders through the press and from the lecture platform, on the subject of flies, rats, cats and sanitation.

The inspection of restaurants, bakeries and grocery stores by the health departments, and the publicity given to such inspections.

The distribution of countless copies of the state sanitary laws and of bulletins relating to their enforcement.

The twenty-year circularization of the retail grocery trade by concerns interested in the sale of sanitary fixtures and the war cry of the sanitary inspector, "*Clean up or shut up,*" have all conspired to bring to pass an "almost" revolution in the American grocery store.

But the work is just beginning.

In the states having the *best* laws, backed by intelligent enforcement, there is still a vast amount of work to be done.

Some states have a good dairy law, covering cleanliness in creameries and stables, *and no law at all* regarding food in stores and restaurants.

And some states—big as well as little—are without a pretense of a state law touching the matter of cleanliness in stores. It is self evident that no *one* prescription will cover all these conditions. To you officials, whose state laws give authority for inspection as to sanitary conditions in grocery stores, I would say: "Shift your inspectors to unfamiliar territory—make your inspection at the proper time of the year and make it thorough, more frequent and more searching than ever." Superficial inspection tends to make your law a farce and your department a thing to trifle with.

Go into a few grocery stores yourselves, and get answers to these questions:

Openings: Are they well screened?

Are there flies in store in spite of screens?

What goods are stored in basement or back room; and are such rooms dry and sanitary, or damp, sour and full of odors?

What bulk goods are displayed unprotected, on or too near the floor?

What bulk goods are stored in stationary bins under the shelving and how are these goods protected from dirt, moisture, cats, rats and mice?

What conditions of cleanliness do you find *under* the grocer's counter? Is it a runway for rats and sleeping place for cats?

What toilet facilities are afforded?

What is the condition of the floor and walls?

Get off the main street and get into the stores owned and patronized by foreigners. Get into the middle-class stores as well as the best and the poorest—see conditions for yourself and then get an inspector's report on the same stores. But the main thing is to disregard appearance and get *behind* and *underneath* and *down into* things, and see real conditions—for these places just out of sight of the customers and out of mind of the proprietor are the fruitful breeding places for many kinds of contamination.

The *shelf* has had your attention in the past. Its package goods, under your careful investigations, have been brought up to satisfactory grades and in the future the shelf and its contents will require somewhat less attention than in the past.

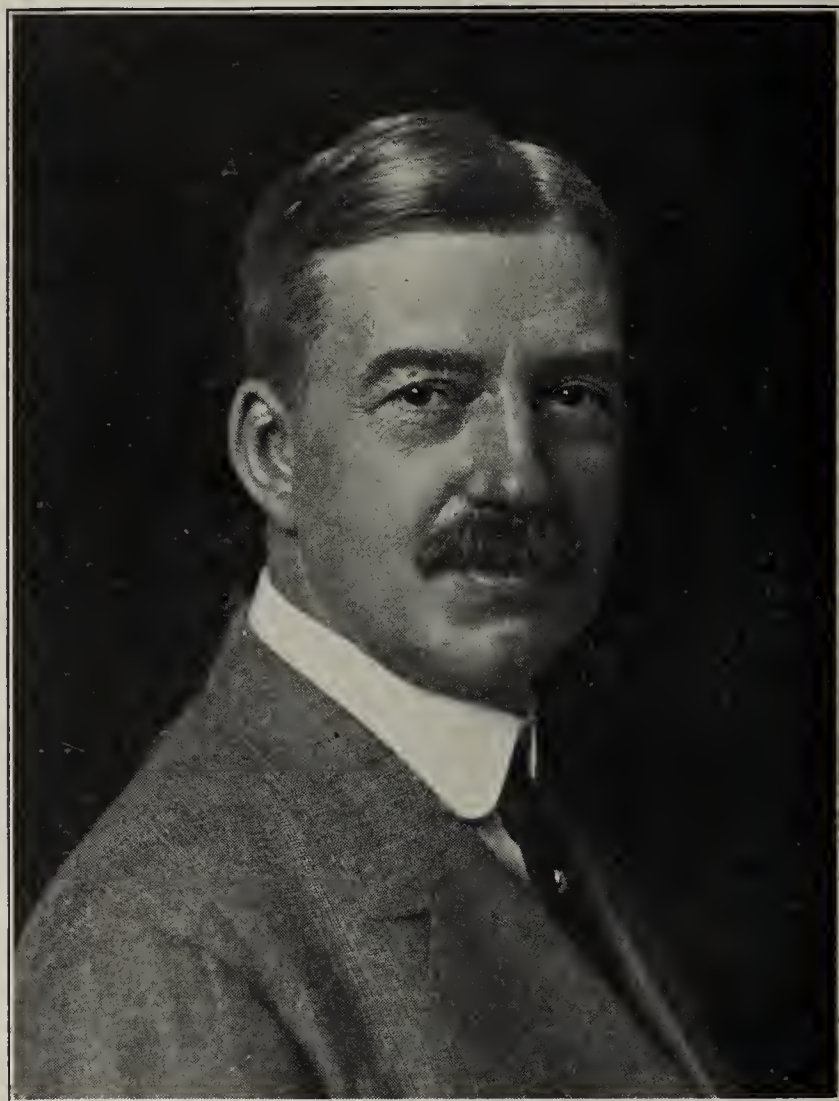
The protection of bulk goods may well claim and call forth the vigorous and sustained effort of health and food authorities in every state.

If your fight for pure food has a good reason back of it; the same reasoning demands that bulk foods, that is, foods handled by the grocer in bulk to be used on the same table, at the same meal, should be handed to the consumer by the retail dealer in the same clean, pure and healthful condition in which those goods came to his store. In short, *if pure food*, why not *clean food*?

Publicity is the most useful means of advancing your work. The slovenly storekeeper dreads it, and the careful storekeeper profits by it. Wise publicity is your best weapon. Suppose, for example, there should be planned for next spring a nation-wide "swat-the-fly" campaign, beginning in the South and following the season North. Let proper authorities in every state—at a date mutually agreed upon—make a concerted attack for one full week. Every blow aimed at the fly is a direct rebuke to the storekeeper who invites, entertains and feeds him.

Suppose you furnished, through the great press organizations of the country, the kind of stuff that newspapers are always glad to get, and saw to it that the news appeared in every paper, largest and smallest—trade, religious, farm, weekly, monthly magazine, and all; suppose all the schools of every state were supplied with good material, such as some states furnished on the subject, and the presentation of the facts be made the teacher's duty for a certain week.

Suppose the health and pure food authorities secured the co-operation of the hundreds of grocers' organizations,



MR. W. G. SHERER.

of the women's clubs, the boy and girl scouts, and the school children—suppose the big men and the little men, and all of the men of all your forces got onto the platform for a week before the actual starting of the campaign and told the people again why they should "swat the fly."

And suppose all your inspectors were put to work in the field at strategic points throughout each state—would it, or wouldn't it make an impression on the fly population, and would, or wouldn't it be a mighty worth-while effort?

Suppose all the school children were required to write a composition on the "Filthy House Fly"—or suppose that the words "No Dirt—No Flies" should be said so many million times that week by every form of publicity that every man, woman and child would hear them—wouldn't the result be worth the effort—wouldn't the storekeeper learn a reason for protecting his goods for health's sake, as well as for dollar's sake?

A nation-wide "swat-the-fly" campaign—wouldn't it jolt careless grocers? And wouldn't it pay?

There is another campaign which might well be started *this fall*.

No grocer knows how much loss he suffers through rats and mice. In spite of all efforts, they get into his goods and live off of them.

I say to you men who know the disease-bearing traits of the rat, and its power to damage and destroy food, that the most popular campaign you could inaugurate for October, 1914, would be a "Bat the Rat, 'Raus mit 'em" campaign, that would rid the stores, warehouses and granaries of millions of rodents that otherwise must be fed all winter. Such a campaign would command strong newspaper support; the property saving would be enormous, and your story of the habits of the rat, accompanied by your several prescriptions for ridding the premises of his tribe, would have appreciative attention from your large clientele of grocers.

Every agency which has aided in a "Swat-the-fly" campaign would co-operate with equal vigor to "Bat the Rat."

If these two great and worth-while efforts could be thoroughly organized and well handled for two or three years, the habit would become established and every grocer in the land would be benefited, his wealth increased, and the interests of the public served.

I am impressed with the great benefit which would arise from combining the machinery of your splendid state organizations in some nation-wide effort as a demonstration of the good you are accomplishing. I believe an annual "Bat-the-Rat" fall campaign offers a fine opportunity to start things along that line.

Every grocery trade paper in the country would lend its aid. Every boy in the land would take a keen interest. If you use the grocers of their state and local organizations to start and father the movement, you will do a diplomatic thing and secure much helpful co-operation.

When I say "Bat the Rat," I acknowledge my obligation to an active official of the State of Louisiana for the slogan.

It is a great thing to clean up a state, but it is vastly more worth-while to start a movement which shall sweep from the Pine Street State to the Golden Gate and cut down by many millions of dollars the winter feed bill of the rats and mice.

This campaign, inaugurated by you, and carried forward by aid of the *grocers*, would reflect credit on both, and would establish a worth-while relationship of mutual interest and co-operation.

And among the "wise publicity" plans in dealing with grocers, there should be included always, and everywhere, constructive suggestions as to good, and better, and best ways to protect bulk goods from all recognized pests, and at the same time for eradicating the causes of damage.

A helpful bulletin would be one which enumerated all the various sources of contamination to exposed goods, and stated in detail various ways to prevent the damage. The storekeeper who fails to clean up, or to take the necessary precautions after such a warning and opportunity, has no right to complain of prosecution.

Thousands of grocers—some in every state—should hear the inspector say, with the gentleman from Louisiana: "The time has come for this store to clean up, or shut up; and the work must begin at once."

When that ultimatum is pronounced, it is up to the inspector to tell the merchant each defect which he criticizes.

One of the best ways to raise the standard of cleanliness and sanitation in grocery stores is to educate the women to demand in the stores approximately the same standard of cleanliness and protection for goods, which they maintain in their own kitchens and pantries.

"Buy your groceries from a store like this," says Commissioner Strode of Ohio, and every year he shows a spotless grocery brought up to the highest level of sanitation; and alongside of it, a horrible example of the sort of store to avoid when buying eatables.

Hundreds of thousands of women, seeing that striking demonstration, have returned to their homes, never again to tolerate goods from a dirty grocery.

For the same purpose, we have sent our grocery counters to many school houses in the City of Chicago, for use by women's clean food clubs, to demonstrate in the poorer parts of the city the way foods should be protected.

My suggestions for the promotion of cleanliness in grocery stores may be summed up in a few words—thus:

1. More frequent, thorough and comprehensive inspection, paying particular attention to the *under side* of things.
2. Equally thorough and painstaking instruction, particularly in case of foreign-born grocers, as to how to make the store sanitary.
3. Information (where such is needed) that sanitary fixtures are in the reach of all grocers.
4. Persistent publicity, bringing strong pressure on wilful offenders, and further publicity as to the rights of consumers in demanding cleanliness and sanitation, and still further

publicity of the sort most appreciated by a public official; namely, the hearty co-operation of magazines, newspapers and the trade press in pushing forward such worthy movements as you shall set going.

5. Getting place on the program of meetings of local, state and national organizations of retail and wholesale grocers, and preaching cleanliness of stores, protection of goods and sanitation.

6. The adoption and promulgation of the state health department's "Ten Requirements for Grocers," as follows:

1. Screening against flies.
2. Condition of basement, or other store room, as regards dampness and opportunities for contamination of goods.
3. Protection of dry bulk food stuffs from dust, flies, rats, mice and dirty hands.
4. Cleanliness of walls, floors, utensils and refrigerators.
5. Exclusion of dogs and cats.

Better protection for goods now stored in stationary bins under the back shelving or counters, or unprotected under the counter.

7. Toilet facilities.
8. Protection from flies and dirt, of fresh fruit and vegetables, figs, dates, honey, and other articles to be eaten without cooking.

9. Non-employment of diseased persons.

10. Discourage spitting on the floor.

If, added to these various methods of working, you "Swat the Fly" and "Bat the Rat," and do it right, and do it through and with the strong help of the grocers' organization you will not only make your groceries more sanitary, but you will find that the public is quick to recognize your department as an important cog in the machinery of government, worth all its costs and worthy of an increased appropriation in the next budget.

You see it is our business to take the goods where you leave them, and see that they are conveyed to the consumer as clean as when they left you.

President Wallis: We will now have a paper on "Some Truths About Saccharin," by Dr. Charles E. Caspari of St. Louis, Mo.

Dr. Caspari: I have my remarks in pamphlet form (printed) and I have a number of them here this morning and I have asked to distribute them as far as they will reach.

SOME TRUTHS ABOUT SACCHARIN.

By CHAS. E. CASPARI, PH. D.

Just ten years ago, at the Louisiana Purchase Exposition in St. Louis, I had the honor and the pleasure of addressing this august body on the subject of Saccharin, and, while many who were present then are also here today, nevertheless there are some members of the association here now, who were not in St. Louis at the time referred to, and I crave your indulgence for a few minutes while I endeavor to present some important and not well known facts relative to Saccharin, some of which are of comparatively recent development. If what I shall say leads to the precipitation of a wholesome and vigorous discussion of the subject in question, I shall be happy.

As many of you doubtless know, Saccharin is a white, solid crystalline substance, which was more or less accidentally discovered by a student at John Hopkins University in Baltimore, working under the direction of Professor Ira Remsen, and from the time of its discovery up to the present time, that is, over a period of thirty-five years, it has been quite generally used as a sweetening agent, with no single case of record during that time of its having done harm, but on the contrary, it has undoubtedly been the means of prolonging life to many.

Early in the administration of the Food and Drugs Act of June 30, 1906, a pronouncement went forth from Washington, without any evidence to justify it, that Saccharin in foods was a poisonous and deleterious ingredient. In other words, it was suddenly discovered over night that Saccharin, which had been in general use for more than twenty-five years, rendered food containing it injurious to health. The manufacturers of Saccharin naturally resented such a ruling and in due time the question as to whether or not Saccharin was injurious was submitted to the Referee Board of Scientific Experts for solution. After this board had reported to the Secretary of Agriculture, a regulation (F. I. D. 135) was promulgated, signed by the three Secretaries of Agriculture, of Commerce and Labor and of the Treasury, prohibiting the

use of Saccharin as a sweetener in foods. When, however, the report of the Referee Board was made public, it was soon discovered that the regulation prohibiting the use of Saccharin was not in accord with the findings of the Referee Board, and it was also found that the three secretaries had signed the regulation under a misapprehension as to what the findings of the Referee Board really were. In support of this statement, I beg to quote from a letter under date of February 27, 1912, addressed to James Wilson, then Secretary of Agriculture by Franklin MacVeagh, Secretary of the Treasury.

"It should be stated that F. I. D. 135 was signed by the three Secretaries because it was believed to be approved by the Referee Board as a correct interpretation of the board's decision. The three secretaries intended to accept the decision of the Referee Board, and it was supposed that they were doing so in F. I. D. No. 135. But the assumption that F. I. D. No. 135 had been approved by the Referee Board, or by the chairman of that board, as expressing its decision was, as it turned out, unwarranted and an error."

When the attention of the three secretaries was called to the fact that their regulation against the use of Saccharin was at variance with the findings of the Referee Board, the matter was again referred to the board for the purpose of obtaining a clearer interpretation of its findings, and in a report made to the Secretary of Agriculture under date of January 13, 1912, the board said, in part, as follows:

"1. The findings of the Referee Board, based upon what would seem to be convincing, experimental evidence, are that small quantities of Saccharin, up to 0.3 grams per day, are without deleterious or poisonous action and are not injurious to health. This being so, it would seemingly follow that foods to which small quantities of Saccharin have been added in amounts insufficient to result in a daily intake of more than 0.3 grams—cannot be considered as adulterated, since foods so treated do not contain any added deleterious ingredient which may render the said food injurious to health.

"Admitting that large quantities of Saccharin—over 0.3 gram per day—taken for long periods of time may impair digestion, such evidence cannot consistently be accepted as an argument in favor of the view that smaller quantities must constitute a menace to health. It is often claimed that any substance having a deleterious effect on health when taken in large amounts, must necessarily be injurious even when consumed in very small quantities, and that it is dangerous to differentiate on the basis of quantity. There is, however, no justification for such a view from a physiological standpoint. Common custom, for example, sanctions the free use of vinegar or dilute acetic acid as a preservative; yet it is well known that in larger quantity acetic acid is a dangerous substance. Common salt, while harmless when taken in small quantities, may become a serious menace to health if taken in larger quantities. The hydrochloric acid of the gastric juice is not only harmless but is essential for the welfare of the body, yet when its concentration is increased beyond a certain point, it becomes a poison. It is evident, therefore, that the decision as to whether a certain substance is or is not injurious to health must take into account the quantity of the substance that is involved. The Referee Board is compelled, on the basis of the experimental evidence, to hold to the view that the addition of small quantities of Saccharin to food does not constitute an adulteration, since there is no evidence that small quantities of the substance are deleterious to the health of normal adults.

"2. The addition of Saccharin to foods, in large or small quantities, does not, so far as the findings of the Referee Board show, affect in any way the quality or strength of the food."

And also:

"In the opinion of the Referee Board, the use of Saccharin in food in quantities that might constitute a menace to health is improbable, since its extreme sweetness would naturally limit its consumption by the individual to amounts below what might prove injurious (in harmony with the conclusions expressed in the original report of the board)."

The result of this report was a modification of the original regulation against Saccharin, but still not in accordance with the findings of the Referee Board. This modified regulation (F. I. D. 142) was not signed by Secretary MacVeagh, who dissented, giving his reasons therefore in the letter to the Secretary of Agriculture from which I quoted previously, in part, as follows:

"I am forced to the conclusion that the proper interpretation of the decision of the Referee Board in the Saccharin case is that Saccharin is positively harmless in quantities that would, in practice, be consumed; and that Saccharin does

not deteriorate or reduce the food value of any article in which it is used as a sweetener. I am confirmed in this conclusion by the letter of the Referee Board to the Secretary of Agriculture, dated January 13, 1912."

And again:

"It is, therefore, my judgment that F. I. D. No. 135 should be withdrawn; and that a new decision should be constructed along the lines I have indicated."

And finally:

"I, therefore, think we should accept the findings of the Referee Board as final."

The situation at present, is that while the Referee Board found that Saccharin in quantities up to 0.3 gram or 4.6 grains per day is entirely harmless and that in greater quantities taken over a long period of time it "may impair digestion," not necessarily *does*, but *may*, still we have F. I. D. No. 142, which prohibits the use of Saccharin in all foods not specifically intended for those suffering from certain diseases. Is this not an absurd and ridiculous situation? Accordingly, Saccharin would seem to be injurious to the healthy individual and wholesome to the sick, really an argument in favor of Saccharin as against sugar.

I shall not at this time go into the question of the prohibition of the use of Saccharin in Germany, France, and Italy, as that question will probably come up in the discussion which I hope will follow and I shall be glad to take care of it then.

The use of Saccharin as a sweetening agent is, of course, versus sugar and every argument against Saccharin is an argument in favor of sugar. Let us analyze this view somewhat in detail. According to the statistics in the Department of Agriculture as to the total consumption of sugar in the United States, it is apparent that if all the sugar consumed in the United States for all purposes should be instantly displaced by Saccharin, the daily per capita consumption would be less than 0.3 gram or 4.6 grains. *Think of it.* Only a relatively small amount of sugar, however, has been displaced by Saccharin and furthermore it is physically impossible to replace the sugar in many forms of food by Saccharin. In such articles of food as bread, cake, candy, confectionery and ice cream Saccharin cannot be used in place of sugar, because it lacks the body which sugar possesses and which makes the use of sugar more or less necessary. Saccharin is used only where it must be considered as a condiment, in the same sense in which salt or vinegar is used. Where Saccharin is used, as for example in catsup, in canned goods and in soft drinks, it cannot be said to be used as a substitute for sugar. A certain amount of sweetness seems to be desirable in such products, and it is immaterial whether that sweetness is produced by sugar or by Saccharin, it is a condimental property of the product and merely forms part of the flavor. It has been held that, because Saccharin possesses no food value, it, therefore, reduces the food value of those products in which it is contained. There never existed, however, a greater fallacy. Such articles of food, as distinguished from drugs, in which it is possible to use Saccharin, are never consumed for their food value. Who would think of eating catsup for its food value? Do we take a soft drink when the temperature is high because of its food value? Certainly not, because the greater the food value of a soft drink, the less desirable would it be as a refreshing beverage and a thirst quencher. Do we eat sweetened canned corn for the food value of the sweetening agent? Assuredly not. The food value of the canned corn lies in the corn itself and the sweetening agent, whether it be sugar or Saccharin, is added merely for the sake of palatability and must be considered as a condiment. As a matter of fact, the use of Saccharin in such products as canned goods is much to be preferred to the use of sugar, for the reason that sugar will ferment while Saccharin will not ferment. If the sugar in canned goods, for any reason, should ferment, spoilage takes place, a food results which is unfit for consumption and a tremendous loss in dollars and cents to the manufacturer is entailed.

The argument has been often advanced that Saccharin was used because it is cheaper than sugar. While economy is no crime, yet Saccharin was used when it was 20 times the price it is today, because the manufacturers found it to be a more practical and more desirable sweetening agent than sugar, for the reason just mentioned.

If Saccharin is used in canned goods, it cannot ferment, because it is unfermentable. That is not to be construed as meaning that Saccharin is an anti-ferment or a preservative, for it is not. There is abundant scientific evidence in support of this statement and it has been shown that while products containing a mixture of Saccharin and sugar will undergo fermentation, the same products with Saccharin alone will

not ferment, showing that the fermentation is due to the sugar and that it is not inhibited by the Saccharin.

It takes approximately 3/10 of a grain of Saccharin to sweeten a pound can of corn—you know that one pound contains 7,000 grains. Surely it cannot be considered that 3/10 of a grain in 7,000 grains adds to or detracts from the food value of 7,000 grains, when such 7,000 grains or one pound can of corn is usually apportioned to four or five people at a meal. Saccharin has many advantages, but one stands out strikingly in this connection, and that is that it is impossible to use it in excessive quantities, because when used in excessive quantities it produces a bitter taste, making the product in which it is used repugnant to the stomach.

In view of these facts, I do not hesitate to make the statement, without fear of its being challenged, that no person consuming an article of food containing Saccharin will suffer in any way from a diminished food value incident to the use of Saccharin, and I think I have shown that the food value of such products as may contain Saccharin is not impaired by its presence.

Against the harmfulness of Saccharin, the report of the Referee Board speaks eloquently. In quantities up to 0.3 gram or 4.6 grains daily, it is positively harmless and in greater quantities taken daily over a long period of time, it may impair digestion. Now 0.3 gram of Saccharin is the equivalent of five and a quarter ounces of sugar in sweetening power. It is, therefore, impossible for anyone to consume in a day enough Saccharin-bearing food to insure the consumption of 0.3 gram of Saccharin. A person would have to eat about five pounds of catsup or ten cans of corn or drink about thirteen bottles of soft drinks before 0.3 gram of Saccharin had been ingested, and this diet would have to be kept up daily in order to get the maximum amount of Saccharin that is harmless. The proposition is preposterous on the face of it. There is, then, absolutely no possibility of anyone consuming Saccharin in an amount that might prove in the least injurious. As a matter of fact, it is well known that Saccharin is used by physicians as the sweetener in various forms of modified milk for infant feeding, where sugar has been found to disturb the delicate digestive apparatus.

The discussion of Saccharin naturally involves the comparison with sugar, and I trust that I may be pardoned for referring to sugar for a moment. The fact is coming to be recognized more and more every day that sugar is the greatest factor in digestive disturbances. The indiscriminate use of sweets by children as well as by adults has led to most distressing digestive disturbances. All of us who have children and who are careful with them, see to it that they do not consume an inordinate amount of sweets, because we know the bad effects produced upon the digestion by such indulgence. The alarming increase in diseases of the kidneys, notably diabetes, is more or less attributable to the enormous consumption of sugar and other carbohydrates. The Medical Board of Life Insurance Companies reports that one-half of one per cent of deaths of insured people are due to kidney diseases and these people were free from any kidney trouble when their insurance was taken out, so that they represent select cases, no account being taken of the large number who die of such diseases and who have no life insurance. To quote from the Human Factor for March, 1914:

"Last year approximately 100,000 Americans died from Bright's and other diseases of the kidneys. Standing alone these figures are impressive. Considering them in connection with two important facts, they become startling. These facts are:

"1. That fully 60% or 60,000 of these deaths could have been prevented or postponed for years if the presence of the disease had been discovered in its early stages.

"2. That the death rate from these diseases is increasing at an abnormal rate—72% in 20 years and 23% in the last ten years. (In the registration area.)"

In this connection also, I beg to quote one of your own members, Dr. L. P. Brown of Tennessee, who, in the Nashville Banner of Saturday Evening, June 13, 1914, said:

"All soft drinks, containing as they do, sugar, are bad for the stomach when too frequently used, and particularly are they bad for children, who are so liable to drink them to excess."

I will also quote Dr. Ayers from the Evening World of July 6, 1911, in an article on "Diet":

"Sugar does more harm than any other variety of food. This is particularly true of the city man. The man who lives in the country and exercises in the open air can take care of the sugar contained in his food. Sugar has a tend-

ency to ferment in the intestines before it has had time to be absorbed into the blood.

"This fermentation causes gastritis, enteritis and colitis." Naturally, the remedy for these distressing conditions lies in a distinctly smaller consumption of sugar and other carbohydrates. But most people want some of their food sweet and here is where Saccharin, a harmless, inert substance, steps in and becomes useful and desirable. More Saccharin and less sugar would render many forms of food just as palatable and far more healthful. This country is today suffering more from an over-indulgence in food than in drink and the less work the kidneys are called upon to perform, the less chance will there be for diabetes and other kidney disorders. If food sweetened with Saccharin is healthful for those suffering from diabetes, gout or obesity, how in the name of common sense can it be held not to be good for those of us who have not yet acquired those diseases, but who are fit subjects for them all the time?

Before bringing my remarks to a close, I desire to refer briefly to another phase of the Saccharin question. We hear it stated on all sides, and with perfect truth, that Saccharin is a coal tar product, and the inference is drawn that that fact in itself is most damning evidence against Saccharin. The effect of the word "coal tar" upon the average individual today, thanks to the public press, is much the same as the effect of a red flag upon a bull, and the cause of the effect in both instances is the same, namely, ignorance. Coal tar is a by-product obtained in the destructive distillation of coal and since coal is of vegetable origin, so also is coal tar. From coal tar is obtained the liquid hydrocarbon, toluene, and from this by a series of complicated reactions is obtained Saccharin. There is nothing to identify Saccharin with coal tar except the fact that it is made from toluene, which in turn comes from coal tar, and even if Saccharin as such were found in coal tar, what difference would it make, except that it would possibly be cheaper and in the opinion of many that fact would make it more worthy of condemnation. Because carbolic acid comes from coal tar and because carbolic acid is a poison, it does not in any way follow that every coal tar product is a poison. Leaving out of consideration all the valuable medicinal products that are prepared from coal tar, I beg to call your attention to the fact that all of the so-called certified colors, which are permitted to be used by F. I. D. No. 76, are coal tar products. It is just as foolish to denounce Saccharin as a coal tar product as it would be to denounce all mushrooms, because some of them are inedible and poisonous.

The Supreme Court of the State of Missouri has just handed down a decision declaring invalid the law in that state prohibiting the use of Saccharin in soft drinks. The decision was unanimous and the Court went out of its way to recognize the principle that the amount should be considered, although it had no bearing on the issues before it which were—1st, that the title of the act was faulty, and 2nd, that the act was discriminatory and therefore unconstitutional. The Court said in its decision a person "would have to drink about 13 bottles of soda water, in 24 hours to get to the danger point in the use of Saccharin. If such is the case, the amount of Saccharin in defendant's soda water is not deleterious to health." Would not an excess quantity of sugar, salt or vinegar be also likely to do harm?

The Federal authorities have now under advisement an appeal from the Federal Regulations now in force. This appeal is based on the Supreme Court's decision in the Bleached Flour case, which construed the intent of the National Food Law that it was the quantity of the product in a food which might be declared harmful, and not the quality.

Now, gentlemen, the manufacturers of Saccharin whom I represent, the Monsanto Chemical Works of St. Louis, desire only a square deal for their product. They ask that the use of Saccharin be permitted in food products in such quantity as is without any doubt harmless to health, say one one-hundredth of one per cent and to have its presence clearly stated upon the label.

Thus a person would have to eat six and one-half pounds of food sweetened with Saccharin in a day and would have to maintain this daily diet in order to receive the maximum amount of Saccharin, declared by the Referee Board to be harmless. Their request is surely fair and I think you must agree with me in this.

In conclusion, I beg to thank you for your attention and your courtesy in permitting me to make this presentation and I trust that you know more about Saccharin than you did before and that this knowledge will prompt you to accord this product the treatment it deserves. The manufacturers ask only a fair deal, based on facts, and are in the

open. They have not had fair treatment in the past, as we all know, possibly due to the lack of information on the product.

President Wallis: This is a very important subject and perhaps some of you would like to ask Dr. Caspari some questions in regard to it so we will take a few minutes to discuss this paper.

Com. F. H. Fricke: All I wanted to say was that the Supreme Court of Missouri has just handed down a decision declaring invalid the law in that it prohibits the use of saccharin in non-alcoholic drinks. However, this department has asked for a rehearing in that case so that it has not yet been finally settled.

Dr. C. E. Caspari: May I add a word to what I have already said? Since coming to Portland, and knowing that it was the center of a large packing industry, especially in corn, I made it a point to call on a number of packers of corn and try to get their ideas or wishes concerning the use of saccharin. I called on at least seven packers and without exception they were all anxious to go back to the use of saccharin in place of sugar. Sugar is added to corn invariably because water has to be added to it, and in the cooking and steaming to which it is subjected a certain amount is destroyed. The sugar is required to make up the lost sweetness and in most cases the sugar is added in excess. The advantage of the use of saccharin over sugar in canned corn is that it does not ferment while sugar does ferment, and saccharin is cheaper.

Com. James Foust: I desire to say that the Pennsylvania law prohibits the use of saccharin. I would not want to see any canners putting saccharin in their goods for that reason. And I make that announcement.

Dr. Charles Caspari Jr. of Maryland: I rise with some feeling of embarrassment owing to my relation to the speaker or writer of the paper. I have endeavored for a number of years past to look at this matter wholly from an impartial point of view, and, in consultation with Prof. Welch, a leading pathologist of the country, it has occurred to me that in all probability a condition might exist in this country similar to that in Europe, in Germany, France and Italy when saccharin was prohibited there. If we are willing to take an impartial view of the matter we must concede that the prohibition of the use of saccharin in Europe was chiefly due to the fact that it interfered with the beet sugar industry. The government reimbursed the manufacturers of saccharin at the time to the extent of the equivalent of five years' profit on their product, in order to show their fairness towards the manufacturers, but they excluded saccharin because it interfered with the beet sugar industry. Now is it possible that similar conditions exist in this country? Isn't it possible that the large sugar industries are the ones who are largely responsible for the agitation against saccharin, a substance which has been shown to be harmless? As much as 30 grams has been taken a day without any deleterious effects whatever. It is excreted from the human system unchanged, which is a fact very much in its favor so far as the deleterious results are concerned, and there is no denying the fact that small quantities of saccharin, sufficient to sweeten a food product and make it palatable, are far superior to small quantities of sugar, which would render the product subject to fermentation.

The Remsn Referee Board has plainly stated in its report to the three secretaries that it is harmless in those doses.

I had no opportunity of seeing the paper which has just been read because I wanted to keep my mind as free as possible, and I want to say right here, and I ask you to believe me, that I haven't had five minutes' conversation with the writer of that paper since we have been here in Portland. I am making a strong effort to keep my mind free from prejudice in this matter, and while we don't permit saccharin in Maryland, it is due to the fact that the law doesn't permit it. We haven't prosecuted a case but it is used in small quantities to sweeten soft drinks.

President Wallis: Our next paper will be read by Mr. Cassius Way of Borden's Condensed Milk Company on "Food Sanitation from the Manufacturer's Standpoint."

Mr. Way: I assure you that it is with pleasure that I come here today representing Mr. S. F. Taylor, the president of Borden's Condensed Milk Company, which is, as many of you know, one of the largest concerns in this country handling and manufacturing perishable food products. It is a pleasure for us as manufacturers to meet with so many scientific men and guardians of the public health. Yours is by far the most important post of any public official, and in your hands and under your control often rests the protection of the health of thousands of individuals who have little or no protection from any other source. It is, therefore, a pleasure for us to confer with you and we thoroughly believe that through the co-operation of the producer, the manufacturer and the public health official along practical, scientific and protective lines that the best results can be obtained for the public weal.

I only regret that it was impossible for Mr. Taylor to be with you today to present to you in person his ideas regarding food sanitation from the manufacturer's standpoint. However, if you will bear with me I will endeavor to present a few of the important views as viewed from the milk manufacturer's standpoint.

FOOD SANITATION FROM THE MANUFACTURER'S STANDPOINT.

By CASSIUS WAY, D. V. M.

Borden's Condensed Milk Co., New York City.

Food sanitation and its relation to public health has been discussed from many viewpoints during the past twenty years, and it is indeed a task to keep abreast of the literature on this subject alone. During these years of discussion milk sanitation and control has received no small amount of consideration, oftentimes occupying the center of the stage so far as publicity is concerned. Therefore, in the consideration of this subject we must recognize the importance of a milk that is a safe, wholesome, standard product that will meet the demands of the largest number of inhabitants of urban life and the inhabitants of countries and districts where climatic and other natural conditions make a fresh milk supply impractical and impossible. The consideration of the subject of food manufacture and distribution naturally involves three very important factors or constituents, the producer, the manufacturer, and the consumer.

In the manufacture and preparation of food products for human consumption the manufacturer occupies a very unique place in that he is subject to the demands and desires of the producer on the one hand, and the whims and desires of the consumer on the other. The honest manufacturer in his practice and operations observes the higher standards of quality and sanitation, oftentimes leading and assisting public health and legal authorities in the construction of better legislation. In addition to this the manufacturer must consider the many economic problems of cost and efficiency in production, labor, operation, sale and distribution of his product, for he is in reality only a middle-man handling, refining and selling a product of the producer for the consumer in the most economical way possible. This must be done in a practical, sanitary and efficient manner. The execution involves the

laws of hygiene combined with business sagacity and skill, with an insight into and a knowledge of economic trade conditions governing the prices of food products as controlled by supply and demand, local and foreign competition. Inefficient laws and the non-enforcement of existing laws regarding food standards and sanitation is hard and unjust competition for the honest manufacturer. There are many manufacturers of sub-standard food products who are always willing to take advantage of such conditions when they exist.

The importance of milk in household economics is recognized by everyone and its importance as a food, a balanced ration, is recognized by all members of the medical profession, and dairy products in their entirety rank second to none among the important foods of today. The susceptibility of this delicate article of food to many and varied changes and the many possibilities of contamination renders careful sanitary methods of production and handling of vital importance. In producing and maintaining a sanitary milk supply certain definite requirements as to production must be maintained, and cleanly methods of handling, manufacture and distribution are equally essential. There is a strong tendency nowadays to deal with business, governmental and medical questions with an eye to the future in order to avert trouble rather than to solve problems under the stress of conditions. The doctor who, by skilled advice and careful hygienic control, prevents the outbreak of a serious disease is worth a dozen, however skilled they may be, after the disease has become an epidemic. If this reasoning is sane the milk business naturally falls under the surveillance of preventive medicine and the manufacturer who effects a careful, thorough and sanitary control over his product from producer to consumer is performing a duty of inestimable value to the public.

Milk is a suitable medium for conveying many forms of infectious diseases of animals and man, it is a perfect food for the growth and development of the bacteria causing many infectious diseases. The pathology of milk, therefore, would naturally, involve a study into those conditions which are regarded as primary to the propagation or dissemination of disease on the ground that milk is a fertile culture medium as well as a convenient vehicle.

The maintenance of a healthy herd is the most potent factor in a sanitary milk supply. The herd should be under the surveillance of a skilled veterinarian and any animals suffering from diseased udders or general constitutional diseases of any kind, especially those of the genito-urinary tract and lymphatic system, that will in any way harm the milk should be segregated from the milking herd and either treated, killed or disposed of as the case demands. To maintain a healthy herd requires careful supervision and regulation. A regular, careful, thorough physical examination of all animals should be made as often as possible, preferably every two or three months, oftener if necessary, depending on the opinion and judgment of the veterinarian in charge. The control of dairy herds and the elimination of diseased individuals by a thorough physical examination together with a microscopic examination and guinea-pig tests of the milk of suspected cows (which are segregated and their milk either destroyed or boiled during the examination) will satisfactorily control the general milk supply, affording the public a good protection. A proper state control of dairy animals along these lines would, I believe, be of inestimable value to the dairymen of the state, in that it would assist them in eliminating the physical cases of tuberculosis which are in the main, and in the majority of cases, the spreaders of the disease. All cases of generalized tuberculosis are not spreaders of the disease, and occasionally there are cases where no indications of disease can be found on physical examination that are spreaders. However, these extreme cases are in the minority. Such work when carefully carried out by competent and trained men, together with the dissemination of information and instruction along practical scientific lines, will do more to protect public health and improve dairy conditions than drastic, radical and inefficient laws and regulations. Coupled with this should be instructions regarding better breeding, soil fertility, balanced rations and sanitary housing of animals including clean, well-lighted and well ventilated stables. These are the practical adjuncts to sanitary dairying that largely measure the success obtained. A corps of competent men disseminating this kind of gospel would in a few years be indispensable and most valuable to the great dairy industry of this country, to public health officials, to the producer and to the consumer. The picture of the benefits obtained is clear, but the funds and the administration are the great questions to be solved. However, I believe that the practical control of tuberculosis and other animal diseases must start with some sound, practical, educational system like this. In this

connection, and I trust you will pardon this personal allusion, the Borden Company paid last year upwards of one million dollars in carrying out and maintaining the work of sanitary control, dairy inspection and premiums paid to farmers for a cleaner and better product.

A safe and pure milk supply for infants can be obtained in a number of forms, including certified, condensed, evaporated, sterilized, pasteurized, malted milks, etc. Probably those in most common use are condensed, pasteurized and certified. The careful and cleanly methods employed and the process used in the manufacture of the former renders it an ideal baby food, and probably more children are raised, or at least started, on condensed milk than on any other single form of prepared food. Pasteurized milk probably ranks second in the amount used and when clean, wholesome milk is pasteurized by an efficient system, preferably the holding system at 140° F. for twenty to thirty minutes, it is entirely safe from a disease producing standpoint, if no contamination occurs after the milk is pasteurized. Efficient pasteurization is also insurance against milk borne diseases of other than animal



MR. CASSIUS WAY.

origin, such as typhoid, scarlet fever, diphtheria, etc., and at the present time is the best general safeguard known against these infections. Pasteurization must not be considered as an atonement for filth, and good milk whether pasteurized or raw should come up to certain standards of cleanliness in production. Certified milk on account of its rigid requirements of production, tuberculin test and supervision of the cows, medical inspection of employees and low bacterial count, makes an ideal milk, considered by some as superior to any other for baby feeding.

The grading or classification of fresh milk as has been adopted by some cities is a long step in advance toward a better milk supply. In this way the producer is compensated for his extra efforts and cleanliness in production and the consumer pays an honest price for what he gets. A high price does not necessarily mean clean milk but clean milk means an extra cost of production.

Milk should be drawn from the cow at regular intervals into clean pails, preferably of the narrow top design. From a bacteriological standpoint this is the most important stage in the production of clean milk. Excessive numbers of bac-

teria indicate the presence of filth and dirt, a high temperature, age or a combination of any of the three. Therefore, clean, healthy cows, clean milking, prompt cooling and quick transportation are prerequisites from a manufacturer's standpoint to a good product.

Cleanliness and sanitation in the production of milk is the first step toward a safe, clean, wholesome product. To this end the Borden Company lay much stress on the quality and the sanitary handling of the original product.

After receiving and accepting the original product from the producer the manufacturer's obligations begin. The product should be handled in such a way as to get it into the final container in the cleanest manner and in the shortest time possible. From the milk manufacturer's standpoint cleanliness is imperative. Mr. Gail Borden used to say, "A little more heat, and a little more cleanliness will solve many problems and difficulties in the milk business." The inventor of the process of condensing milk in-vacuo and the founder of our institution realized the importance of, and put into practice, many fundamental principles of sanitation and cleanliness that have remained in vogue all these years. These are principles in milk sanitation that time will never change.

Modern machinery and modern methods of manufacture have been planned and outlined with the view to rapid handling of the product without exposure to the air and other external sources of contamination. A detailed description of these at this time obviously I cannot present. Suffice it to say that modern methods of manufacture insure the best product possible by the most economical and sanitary methods known to either practice or science.

Efficient, scientific sanitation is probably the manufacturers' greatest protection and asset. By the application and recognition of efficient sanitation in his practice the manufacturer first, protects the public to the best of his ability, insuring himself to the limit of his power against the possibility of vending serious troubles in the form of disease and poisons. Second, his goods hold up, the consumer is satisfied and the compliment of another purchase is forthcoming. Third, the manufacturer can carry on honest advertising and competition based on sanitary production and quality.

These are the desires and aims of the honest manufacturer—quality, satisfaction and protection. A combination of your efforts and ours in sanitation and practice are bound to benefit the producer, the industry and the great consuming public.

President Wallis: Mr. Oscar McGlasson, president of the National Wholesale Grocers' Association, was to have talked to us on the "Effect of Pure Food Laws on High Cost of Living." Mr. McGlasson is not here, but I have asked Mr. Dana T. Ackerly of New York to say a few words.

Mr. Dana T. Ackerly: Mr. McGlasson was unable to be here and he commissioned me to express his regrets to you and also the sincere thanks of himself and the executive committee for setting aside this ample time to hear what the manufacturers have to say. I think you have been consideration itself to give an entire day from a program heavily laden with most important scientific and practical matters that more nearly concern you.

The suggestion made by Mr. Wallis yesterday that each of the organizations in the food trades file with your secretary the name and address of their secretaries seems to me a point that will surely lead to some very practical co-operation. I am authorized by the executive committee of the National Wholesale Grocers' Association to say to the commissioners here that if you will send to the secretary of our organization word that any product seems to you not to comply with your laws or regulations, that the matter will be taken up by us as counsel and by the executive committee, and that members whose goods are questioned by you will be advised to make it conform. That is one of the purposes of this organization, to see that the goods of our members do conform to the law.

At our annual meeting in June last we had the honor and pleasure of having with us two of your prominent members. One was Dr. Ladd of North Dakota

and the other Mr. Winkjer of Minnesota. The association in passing its resolutions thanked those members for attending the meeting and that has been incorporated in a telegram sent to Mr. Wallis.

In conclusion I want to refer briefly to two or three points in the constitution of this association and its by-laws adopted there in Minneapolis. This constitution is practiced, gentlemen. It is followed out just as thoroughly as we know how to do it. You know fashion hobbles the ladies, but the law hobbles the rest of us. I want to read just a part of it.

"To oppose improper methods and illegitimate practices inimical to the right conduct of business that honest and open competition may prevail;

"To promote harmonious relations in order that food products may be placed in the hands of consumers at the lowest possible cost;

"To assist in the enactment and enforcement of federal and state pure food laws that in their operation shall deal justly with the rights of consumers and the trade, and of effective weights and measures statutes for the protection of the public."

Then the resolutions to which I referred a moment ago are as follows:

"Resolved, That individually and collectively we, the members of the National Wholesale Grocers' Association, express our deep appreciation and lasting indebtedness:

"To Prof. E. F. Ladd of North Dakota and of the American Association of Food, Drug and Dairy Officials, for his presence at our meeting, and for his splendid address and his helpful and very practical suggestions upon the subject of pure, honest food.

"To Hon. Joel G. Winkjer, Food Commissioner of Minnesota, and to his Association for attending our meeting and for his valuable recommendations upon food questions."

"Resolved, That we respectfully urge the various State Legislatures that have not yet done so to enact a compulsory Weight and Measure Branding Law, based upon the Federal Weight Branding amendment of March 3, 1913.

"Resolved, That we respectfully urge the State Food Control Officials, and the Weights and Measures Officials of the various States to adopt and enforce weight or measure branding regulations in harmony with the thorough and comprehensive federal regulations adopted by the Secretaries of the Treasury, of Agriculture, and of Commerce in United States Food Inspection Decision No. 154.

"Resolved, That we express our sincere appreciation to the Secretary of Agriculture, the Chief of the Bureau of Chemistry and the American Association of Food, Drug and Dairy Officials, for the very practical plan adopted by them this year, to secure uniformity of enforcement in the national food laws, and of those of the entire forty-eight States, and for the establishment in the Department of Agriculture of a branch for this co-operative work."

Gentlemen, I am sure it is a source of regret to our president, Mr. McGlasson, that he cannot be here and take advantage of the opportunity which you have offered him. I, however, wish to thank you on his behalf and upon my own.

President Wallis: We will now listen to an address by Mr. W. B. Cherry, vice president of the American Specialty Manufacturers' Association.

WHAT SHOULD BE THE RELATION BETWEEN THE FOOD MANUFACTURERS AND THE FOOD COMMISSIONERS?

Address by W. B. Cherry, Vice-President, American Specialty Manufacturers' Association. Delivered at the annual meeting of the Association of American Dairy, Food and Drug Officials held at Portland, Maine, July 17, 1914.

Mr. President, Gentlemen of the Association of American Dairy, Food and Drug Officials, and Honored Guests:

I feel most highly honored in being permitted to represent the American Specialty Manufacturers' Association at this important meeting and to extend to you its cordial good wishes and evidence its sincere and earnest respect for and belief in the Association of American Dairy, Food and Drug Officials and all that it represents, and all that it means to the nation.

The cordial invitation which you have extended to the food manufacturers and dealers of this great nation to meet here, at this time, for the purpose of mutual acquaintance, the exchange of mutual viewpoints and the drawing nearer in a general plan of harmonious and sympathetic co-operation to conserve and enhance the health, welfare and happiness of all the people was prompted by a noble impulse and is accepted in that same spirit, not only with pleasure, but more, with the warmest approval, as such co-operation portends well for the future.

May I first introduce to you, that is to those present who may not be so familiar with it, the Association which I am proud to represent?

The American Specialty Manufacturers' Association includes in its membership many and large manufacturers of grocery specialty commodities; that is to say, of the articles which are finally sold by the thousands of retail grocers in original packages, if I may use a much abused term, in package or container form, under their own distinguishing brands or trade-marks—in other words, packaged specialties. If you will recall, there has been within recent years a sweeping economic change in the marketing of grocery products, and where formerly bulk sales prevailed, now the tendency has developed toward the sale in unit and sanitary containers, bringing to the front the specialty manufacturers. The advent of the canned food, preserving nature's bounties in all their delicacy and wholesomeness for an indeterminate period, was another step in the development of the specialty commerce.

While this Association includes manufacturers of articles which are neither foods nor drugs, I believe it may be fairly stated that the larger number of our members manufacture and market products which are amenable to the pure food and drug laws. The products manufactured by our members cover the entire range of packaged foods and are of every description, are sold in every locality in the United States and reach the houses of practically all of the people of the entire country. With the development of the rapid methods of transportation and with the perfection of processes of manufacture and packing, we are enabled to send from our factories, canneries and packing houses the same products to every corner of the country, maintaining a uniform standard of quality and purity. A majority of our members do a national business and the remainder are constantly working toward that end.

The American Specialty Manufacturers' Association represents, generally speaking, the diverse food manufacturing interests of the nation. As food manufacturers its members are necessarily and naturally vitally interested in pure food and pure food laws and regulations.

The constitution of our Association is the platform on which we stand, indicating the principles which have been voluntarily adopted and which are intended to be realized, maintained and lived up to, and fought for, if necessary. One of the objects of this Association reads:

"To preserve a high standard of purity of the articles dealt in by its members."

Another object reads:

"To assist in the enactment and enforcement of laws which, in their operation, shall deal justly and equitably with the rights of the consumer, retailer, jobber and manufacturer."

These objects were incorporated and adopted by earnest men and law-abiding citizens who wished to raise the industry in which they were engaged to the highest standard, to promote and preserve the highest quality and the greatest purity and proper branding and advertising and to lend every assistance to the enactment and enforcement of laws which would be of public benefit and service, afford the necessary protec-

tion and produce the most economical condition of compliance.

From its very inception the American Specialty Manufacturers' Association has used its influence on occasion to the realization of the purposes above indicated. The reason for the existence of such trade associations is the ability to carry out such purposes by united and co-operative efforts, where if attempted by the individual manufacturer success would be difficult and slow.

Food manufacturers dealing in articles for human consumption are engaged in a business affected with a public interest and they owe, consequently, certain well defined obligations to the public consuming their products. Such a commerce is thereby distinguished from the ordinary commerce. No manufacturer of food products has an inherent or constitutional right to purvey products unwholesome or dangerous to health or deceptive and fraudulent, even though fit for consumption. He who makes such a claim or acts upon such a presumption deserves the severest public condemnation and punishment.

Viewing the entire food industry, you will find a sound, healthy, wholesome and law-abiding industry, made up of men of large capacity and splendid character, men proud of the business in which they are engaged, proud of the products which they make, challenging the whole world to equal or surpass them. Commercial reputation is not less valued than personal character. We offer no apologies, and ask for no favors. The manufacture of food products is a necessary business, not capitalized and instituted at the expense of the public. It is a business in the pursuit of which the public is deeply concerned. How much does the nation owe to the betterment of its food supplies and their economical production and distribution? We in these United States fondly believe that this nation is the most advanced of all nations in the character and quality of its food supplies. We believe, with a degree of certainty, that this nation possesses the most efficient health regulations, the most scientific and sanitary factories and the most general enjoyment of an abundance of pure, wholesome and high quality food products.

The food manufacturing industry of the nation is one of its greatest assets and has been brought to a degree of development and character that we may rightly be proud of it. Sometimes, not often, the few malefactors are weighed against the great majority of the honest and law-abiding and efficient food trade. While the vigilance in protecting the public from possible unwholesome or fraudulent foods should be maintained with the strictest and sternest hand, it should be borne in mind that the great majority of manufacturers are honest, are conforming, and more, to the law, the greater volume of products consumed are pure, wholesome and truthfully labeled, and that constructive work should go along with prohibition, that the hand which punishes should also be the hand to help and encourage, that there is no greater blessing than to instil and create rightful confidence in the foods we must consume.

The members of the American Specialty Manufacturers' Association and the food manufacturers, generally, striving as they are to create the most perfect conditions in the manufacture and marketing of their products, striving as they are to eliminate that injurious and harmful competition which is based upon the lack of a proper conception of the obligations owed or upon the lack of a proper knowledge of the applicable requirements, striving as they are to create a uniform and effective law and controlling regulation throughout the country, are not only willing but anxious to join hands with food control officials, with the various consumer organizations and with all who are working toward this same end.

If our interests are identical, if our purpose is the same, why should not a perfect and harmonious understanding and co-operation exist? The efficient food control official cannot lose caste by conferring with the legitimate and honest trade, the legitimate and honest trade does not take on a greater degree of honesty or distinction by conferring with the food control officials. But it is to their mutual advantage and to the advantage of the public they both serve so to co-operate and bring about efficiency in the law and its enforcement. To be hostile, or to remain at a disinterested and respectful distance, is just as if each human arm should act independent of the other and the body to which they are attached and of which they are a part. It is plain, common sense that the manufacturers and officials should work together and in harmony. It is a fact, we believe, that many mistakes are mistakes made inadvertently and through a lack of or a misunderstanding of the necessary knowledge. Harmonious co-operation should render such mistakes less frequent and liable.

Manufacturers who have given their intelligence and best efforts and years in their calling may often be of considerable service to the official who is earnestly endeavoring to apply or formulate a law. Pure food legislation, almost more so than any other commercial legislation, is an intensely practical legislation. Impractical features are expensive, which have a distinct bearing on the cost of living. Such laws should not be made for the mere sake of making them, but should be founded on merit and should accomplish their end in the shortest manner, so to speak; that is, in the most effective manner, without disturbing normal and legitimate conditions except in so far as is necessary.

An efficient and fair law is the beginning. The important part comes in the enforcement. Such a law fairly enforced will meet with general support and produce general co-operation. And here permit me to offer the strongest testimony to the wisdom and value of the existing pure food laws. Such laws have been of benefit, the extent of which can hardly be estimated. Not only have they enforced a better condition in the products consumed, but have proven of immense service to the honest food trade in eliminating the unfair competition engendered by those whose conduct has not been proper. Please bear in mind that often under the old stress of such unfair competition it was difficult for the manufacturer who gave real value and quality to compete with products of questionable character. This law has been a purifying and leavening influence and today the wilful malefactor is in a very, very small minority.

The Pure Food Law is not a means to increase the criminal population of the country. On the contrary, it is intended to be the means of reducing illegality in food products to a minimum. It is not a weapon to be swung blindly and savagely because of its overpowering strength, but rather a power to be carefully held in reserve until the deserved case arises, and then to be used without restraint. Its influence in the meanwhile is all powerful and persuasive. The manufacturer is trying as best he can to do what is right and lawful, and inadvertent and technical errors should not be charged heavily against him. Wilful illegal action or continued and wilful failure to recognize that which is reasonably within knowledge deserves no mercy. But it is no small thing to brand a manufacturer as a criminal, even though the fine may be nominal, and impress that scarlet letter upon his forehead which can never be burned off in this world. What is left to us if our character is gone, our personal or business character? We guard it, we cherish it; we would give up our lives to maintain it unsullied. A criminal law, therefore, should be surely enforced to hit the merited mark.

What is being done to bring about that closer co-operation between the manufacturers and the food control officials?

During the past year through the efforts, principally, of the American Specialty Manufacturers' Association, a national food trades conference was formed. The practical difficulties hindering a ready and efficient co-operation between the individual manufacturers and the individual trade associations, on the one hand, and the food control officials, federal and state, on the other hand, in the matter of general policies, are obvious. To overcome these difficulties and to afford a medium where the entire food trade and representatives of the civic organizations working along these lines could meet and confer in such a representative and accredited and responsible manner with the federal and state officials, and to bring about a greater uniformity of the pure food laws, the National Food Trades Conference was formed. Its formation and purpose met with a general approval, particularly by the federal authorities. A meeting was held in New York City and later the executive committee and the committee on collaboration of the conference met in Washington and conferred with the responsible heads in the United States Department of Agriculture. Several suggestions were offered at this meeting in the interest of greater efficiency in the law and its enforcement. So that now we have a medium whereby the food trade may meet in a practical and ready manner and confer with the officials. The "uniformity" of the pure food laws to which the conference is committed represents in a single word or idea the entire field of our and your efforts. Uniformity means the best possible laws universally prevailing affording equal protection and an equal standard of living for all. It is inconsistent and unfair to have distinctions in such health and welfare laws, and vary their force, thereby setting apart one people from another in the same nation, affording a different protection and standard of living, when we are all entitled to equal opportunities and privileges and protection. Such a condition is contrary to the fundamental principles of our government, although made possible by the form of our

government. We are a single united nation. We consume nowadays the same products, produced in the same factories, from the same fields. A single rule of purity, a single standard label would not appear an unreasonable requirement, rather the proper and natural requirement. Do not lessen the effective laws in any single locality, bring all the laws to the highest level of efficiency, and then let that single uniform law prevail equally everywhere. The manufacturer who does a national business is an *American* manufacturer, not a local manufacturer; he is responsible to all the people equally and is subject to the regulations of all the people. He only asks for a single *American* standard. The manufacturer who does a national business, as do most of the members of our Association, should be able to send his products out to meet the demand wherever made with the same condition or manner of manufacture, with the same label. A lack of uniformity obstructs the natural flow of commerce and tends against economy. Uniformity of laws and enforcement in the sense and meaning above described is essential, we believe, in the general public interest.

On the other hand, there has been established in the Bureau of Chemistry of the United States Department of Agriculture a division of federal and state co-operation, tending to bring together the federal and state food and drug departments and to bring about a general uniform end efficient law and enforcement. We have none but the highest commendation of and praise for this new division, and believe that its establishment will mark an era in the history of the food and drug laws of this country. There is, therefore, a central, working and responsible body bringing together and harmonizing the active elements in the enactment and enforcement of the laws, generally. There is *this* great organization, the official organization of all those officers, national and state, who are held responsible by the peoples, respectively, for the enforcement of the laws.

The situation is well set, therefore, for a cordial and harmonious co-operation. We believe such a co-operation can be made a living and vital force for good through these agencies and we earnestly hope that this meeting will not close without witnessing the beginning of such a plan of co-operation. You are planning and considering many new laws and regulations and standards, and greater efficiency in administration and enforcement.

The American Specialty Manufacturers' Association, the National Food Trades Conference, the food manufacturers and dealers, generally, are with you heart and soul and pledge to you their heartiest support and co-operation. This meeting is not a social meeting, I believe,—it is a meeting for work and accomplishment, for the advancement of the cause you represent. The eyes of the nation are upon you, and watch your deliberations with keen expectancy. The responsibility is great. We feel it and we are ready to enlist with you, under the same banner.

You will recall the memorial statue erected in many places in honor of the brave soldiers and sailors who lost their lives in the Civil War. You will recall that Peace stands a towering and kindly figure looking down upon and crowning with the emblems of peace the sailor and soldier standing, one on each side, with clasped hands. Thus is symbolized the ideal which we may adopt. Upon the same base, or platform, representing the whole United States, stands, as the towering central figure, the great American people, the people of all the United States, looking down with that smile of entire confidence and righteous pride upon the two figures below, one hand resting on the shoulder of each figure, the two figures representing, respectively, the food control officials and the food manufacturing industry, standing with clasped hands of friendship and co-operation. On a pedestal rests the single uniform and effective law, above floats the American flag, affording universal and equal protection and rights, with special privileges to none.

Dr. W. D. Bigelow: I would like to say a few words about a paper that was read this morning, Mr. President. I was sorry I was not in the room this morning to hear Dr. Caspari's paper because that was a matter in which I am greatly interested. I understand, however, that he made the statement that from conversations which he had with several Maine canners that he had reached the conclusion that the Maine canning industry, or at least a considerable proportion of it, would like to use saccharin, with a suitable declaration upon the label, if it were permitted. Do I quote you right, Dr. Caspari?

WHY SACCHARIN WON

The Long, Contested Suit of the Monsanto Chemical Works of Saint Louis, Manufacturers of Saccharin, Is Finally Decided in Its Favor.

The Supreme Court of the State of Missouri in handing down its *unanimous* decision that Saccharin is not deleterious to health, and declaring null and void the statute prohibiting its use recognized the principle that the amount used must be considered. This, the Supreme Court of the United States also did in its decision in the famous Bleached Flour case.

An excessive use of anything is harmful, whether it be sugar, salt or water.

SACCHARIN is much more desirable than sugar as a sweetening agent for soft drinks from any view point: (First)—Healthfulness; (Second)—Economy.

The Food Commissioner of the State of Tennessee declared in a recent statement, that "all soft drinks containing as they do, sugar, are bad for the stomach, etc."

This is a strong argument for SACCHARIN. In using SACCHARIN the danger from the use of sugar is eliminated, and the infinitesimal amount of SACCHARIN that is required to sweeten cannot possibly be harmful to any one, either adults or children.

Any physician will tell you that we are all eating too much sugar. When it is considered that practically 20% of the people of the country are either afflicted with Kidney troubles or have a tendency to be so afflicted, and that sugar is a known poison to such people,—the majority being unconscious of the fact—it leaves no room for doubt that SACCHARIN is the proper and most desirable sweetening agent for soft drinks.

Use SACCHARIN to sweeten and do not hesitate to declare its use on the label. **Such declaration stamps your goods as being healthful.**

MONSANTO CHEMICAL WORKS

Manufacturers of Saccharin

ST. LOUIS

Branch: Platt and Pearl Streets, New York

Dr. Charles Caspari of Missouri: Yes.

Dr. W. D. Bigelow: Now, of course, we all know that the majority of food manufacturers do not realize the food value of sugar which is added, merely for the purpose of sweetening, in small amounts, and I have no doubt but that a great many canners of corn would like to use saccharin if they were assured that it was wholesome and not injurious to health, as an economy enabling them to prepare a cheaper food. At the same time, when the matter is pointed out to them in all its bearings, when they hear the matter discussed from all standpoints, I think every reputable canner of corn in Maine or anywhere else would change his views.

There is another matter to call to your attention which I did not mention yesterday. One thing that attracted me to the National Canners' Association was that their slogan is "Let nothing be added to the can to which there is any objection." They refuse to use anything whose declaration is required in any state, whether it is injurious to health or not. There are certain packers of red fruits which are bleached by the plain tin, who have been unable to use lacquered tins because of the cans parboiling and some of them want to color the fruits with an artificial coloring. The strongest pressure was brought on those people to keep them from doing that because we felt it would cause a general criticism of the whole canning industry because of that added coloring. The strongest pressure is being brought to bear on all canners not to add anything to their food products which would be objected to interstate shipment. Now I am told that Commissioner Foust said this morning that Pennsylvania does not permit the sale of foods containing saccharin.

Com. James Foust: Our law specifically prohibits saccharin.

Dr. W. D. Bigelow: That fact in itself is enough to keep the canning industry from using saccharin. They want to be able to say that their food contains nothing that will interfere with its sale in any state. There is the strongest feeling among the men who set the pace in the industry that saccharin should not be used. They are absolutely against it. And I am putting this merely on a business basis now. I am considering that standpoint alone, although I don't wish it to be understood that that is the only thing that actuates the men who are influential in the industry.

And I wish to state that I have discussed this matter with some of the same Maine packers of corn that Dr. Caspari saw and that two of them feel quite differently about it now. I don't want to intimate that he misrepresented the matter to them at all but after thinking the matter over and realizing the conditions as I have stated them, their views are different now and I don't believe that if saccharin were permitted today that they would use it. I believe the conditions would be so brought to their attention before the packing season began that they would not use it. I thank you.

Dr. Chas. Caspari of Missouri: Dr. Bigelow has said he has had an opportunity of talking to these gentlemen I quoted this morning since I had and that they had expressed changed ideas on the subject. That I was not aware of, of course, or otherwise I would not have quoted them as I did this morning. As to whether or not the statement on the label of the presence of saccharin in canned corn is harmful to the in-

dustry is a matter for the canner to decide for himself and cannot be decided legally or by rule or regulation. If you grant the industry the right to use saccharin and they see fit not to use it, it is their privilege not to use it. That is up to them. I am not attempting to decide what shall be done for the benefit of the canning industry. I am asking you to make regulations which shall be just to a product which is not injurious to health and does not replace any food value which might be in sugar. I will repeat that and if I am wrong I will be glad to be corrected. I said sugar is added to replace some of sugar removed by the cooking and that the packer does not endeavor to add more sugar than enough to restore the original sweetness of the corn.

Dr. W. D. Bigelow: I don't think that is entirely right. May I say a word, Mr. President?

President Wallis: Certainly.

Dr. W. D. Bigelow: As I understand the situation, I think that is the view many packers do take of the matter. It is my experience, though, that the packers of the best corn aim to add enough sugar to give it a desirable flavor and a greater amount of sugar is added than was originally present.

Dr. Chas. Caspari of Mo.: I was taking the word of the packer for it.

Dr. W. D. Bigelow: Yes. Well, I think that is their idea of the matter. Now the cooking may remove the sugar or change the flavor. They aim to get about the flavor that was in the ear of corn as you eat it on the cob.

Dr. Chas. Caspari: And the sugar is not added for any food value that is in it. It is for the flavor. It is not added for its food value but simply as a sweetener. The reason why it is added is because they want to sweeten that corn and saccharin can be added just as well as a flavor, since it is not injurious and the act of fermentation is thereby prosecuted, which is certainly an advantage and before the regulation against saccharin went into effect a large majority of the canners of corn did use saccharin to sweeten corn and they did not cease to do it until they had to do it on account of the regulation prohibiting its use.

Dr. W. D. Bigelow: A good many canners have told me that before they were required to stop it, they did stop it because they liked the flavor of sugar better. As a matter of fact when those who had used saccharin began to use sugar they had a lot of trouble with their processing. It takes a longer sterilization or a higher temperature but they have learned how to overcome that difficulty and they don't have it now.

Speaking of their having used saccharin at the time the Food and Drugs Act passed, there were a good many canners using it. This was before it was held by the bureau to be injurious to health and a good many letters came in from the packers of corn wanting to know if it had to be declared upon the label. They objected very much then to declaring it upon the label and a good many canners who fully believed it was harmless, and that it was just as good a flavor as sugar, gave it up because they thought it would be objectionable to their trade to declare it and they did not want to use it if it was known to the consumer.

Dr. Chas. Caspari of Mo.: There must be a difference of opinion among canners because very recently I was told by a canner that the reason they preferred to use saccharin was because it improved the

What the Chemist Saved One Business

A packer of food stuffs had an excessive quantity of a perfectly wholesome but inferior quality product, which at the time was unsaleable.

Co-operating with a chemist an entirely new product was developed, which has now become one of his best sellers. Two other products were also developed from the waste material.

Almost every manufacturer has some unsalable or waste material that can be developed into valuable products.

Manufacturers desiring to improve their products and lower the costs of production should consult with us.

No Charge for Preliminary Consultation

LEDERLE LABORATORIES

Sanitary, Chemical and Bacteriological Investigations
39-1/2 West 38th Street New York

Canned Salmon

ALL GRADES ALL SIZES

Largest Distributors
in the World

KELLEY-CLARKE CO.

SEATTLE, U. S. A.

THE COLUMBUS LABORATORIES

31 N. State Street CHICAGO, ILL.

DEPARTMENTS: Food, Commercial, Medical, Milling and Baking.
Expert Staff of Consultants. Court and Medico-Legal Work.

NATURAL FRUIT FLAVORS

FOR USE OF MANUFACTURERS

C.X.C. LEMON, C.X.C. ORANGE, C.X.C. LIMES

Soluble, Concentrated, Terpeneless

FOOTE & JENKS, Sole Mfrs., Jackson, Mich.

EDWARD GUDEMAN, Ph. D.

Consulting Chemist and Engineer

Scientific Expert Before the Courts

CHICAGO, - - - ILLINOIS

Victor Chemical Works

New York Chicago St. Louis

Phosphates, Baking Powder
Materials, Epsom Salts

BENTON FRUIT PRODUCTS CO.

PURE CIDER VINEGAR

PICKLES IN BRINE OR VINEGAR

BENTON HARBOR - - - MICHIGAN



MONUMENTAL Scale Co.
GENERAL SALES OFFICE
The Computing Scale Co.
Dayton, Ohio.

THE FIRST AND FOREMOST
BUILDERS OF COMPUTING SCALES

GENERAL SALES OFFICE
326 W. Madison St., Chicago.
ALWAYS OPEN TERRITORY TO FIRST CLASS SALESMEN

THE VERY BEST

'Wagner Quality'
—Canned
—Foods

MARTIN WAGNER COMPANY
FOOD PRODUCTS OF HIGHEST QUALITY
BALTIMORE MARYLAND

B. HELLER & COMPANY



THE PLANT BEHIND OUR PRODUCTS

Manufacturing Chemists

CHICAGO, U. S. A.

flavor of corn, gave it a better flavor than sugar. Now they have told Dr. Bigelow something different.

Com. James Foust: I make a motion that the first order of business this afternoon be the hearing of the report of the Resolutions Committee and acting on that and then the election of officers.

Motion seconded.

President Wallis: What will you do with the papers?

Com. James Foust: Have them afterwards. I appreciate very much the remarks of Dr. Bigelow. We have done a lot of work on canned goods in the state of Pennsylvania. We took up 900 different brands of canned goods. They were examined by Dr. Frear at State College. They were potted goods, fruits, vegetables, etc. We did not find in the entire line of products purchased and analyzed any chemical of any kind in any of the goods. I think the canners are doing everything we can expect. They are spending a good deal of money to give us the best possible products, products which are pure and free

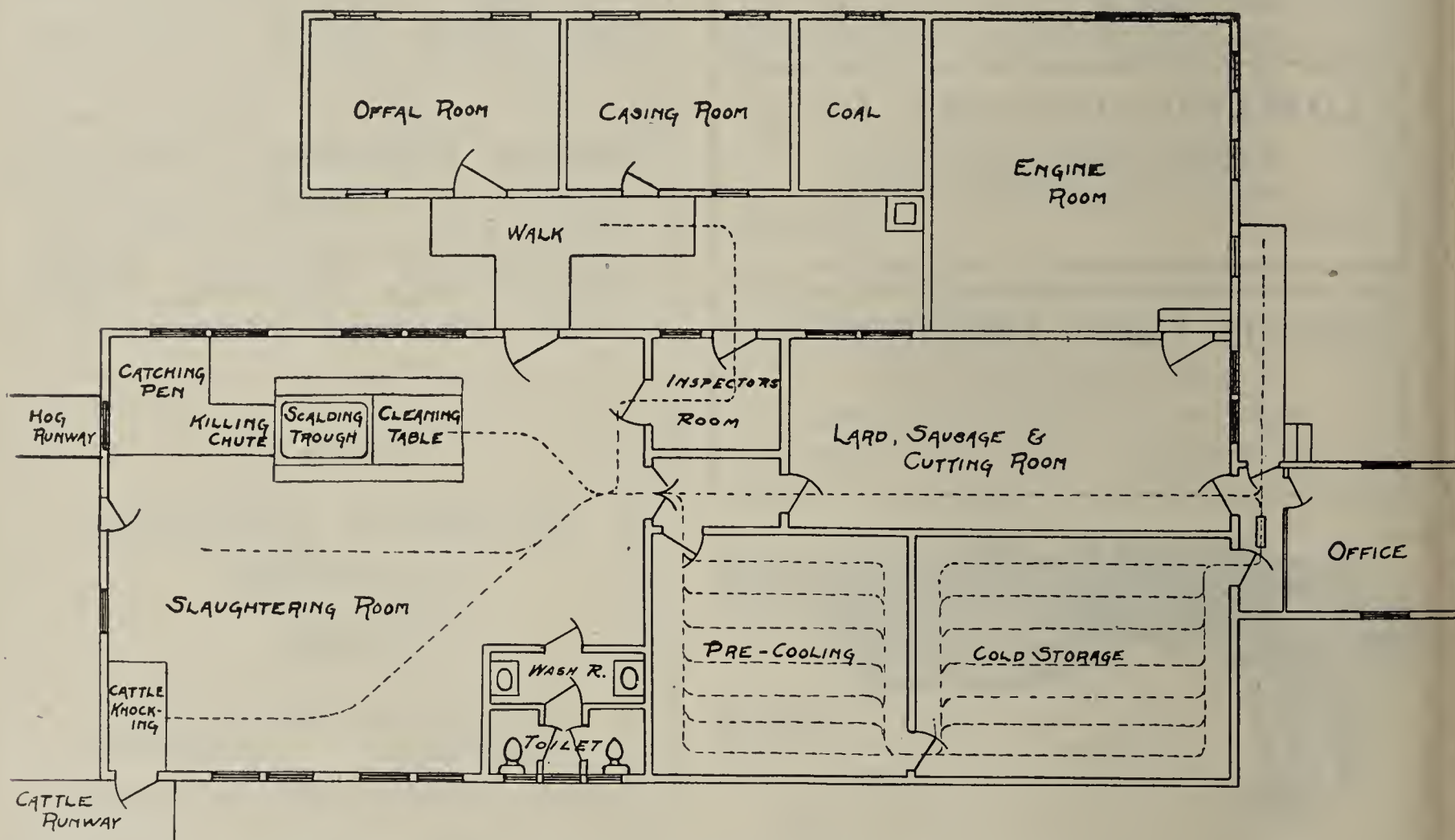
from drugs of all kinds, and I want to say that I appreciate very much the remarks of their chemist here today and I hope they are not going to use any saccharin because if any such goods are shipped into Pennsylvania labeled or not, I can't do anything except to enforce the law against them because we have a special law, specifying saccharin by name and prohibiting its use. And so far as Pennsylvania is concerned, that is the end of it. All we have to do is to prove it contains saccharin and the court has nothing to do but direct a verdict of guilty, and that is accordingly done.

Com. W. B. Barney: I move we adjourn.

Motion seconded.

President Wallis: Before I put that motion, I want to say that Mr. Allen has brought up a matter of the resolutions committee. That was appointed to consist of three members and the chairmen of each section. If there is no objection, the committee will stand as appointed. We stand adjourned until 2 o'clock this afternoon.

Adjourned until 2 p. m.



Note.—This illustration belongs in article by R. M. Allen on pages 362-3-4.

FIRST FLOOR PLAN OF SUGGESTED ABATTOIR, THE OFFAL ROOM TO BE FARTHER AWAY FROM THE PLANT THAN IS SHOWN IN CUT. WASH ROOM TO BE LOCATED OUTSIDE AND BETWEEN WINGS OF THE BUILDING.

NEW ICE CREAM SODA AND SOFT DRINK BULLETIN.

The Illinois State Food Commission has just issued a new Ice Cream Soda and Soft Drinks Bulletin, No. 32, for the benefit especially of dispensers of these popular products.

The bulletin goes into the subject thoroughly. The conditions that cause decomposition are set forth in detail and suggestions made as to how to handle the ingredients so as to keep them pure and wholesome.

Beginning with the fountain and its equipment, and how to keep same clean and sanitary, and covering every factor through to dispensing these products over the counter much valuable information is set forth which those conducting ice cream soda and soft drink counters cannot afford to be without. Every dispenser of these products should get a copy of Bulletin No. 32. It may be had free by writing to the Illinois State Food Commission, W. Scott Matthews, Commissioner, 1627 Manhattan Bldg., Chicago, Ill.



50 Years in Public Favor

The house of Armour has spent a half-century catering to the food-buying public.

During this entire period there has been a constant and sincere striving on our part toward perfect food production. As a result of this striving and achieving the Armour food label is now the accepted symbol of highest quality—an assurance of purity, cleanliness, uniformity and wholesome, healthful goodness.

Today Armour Food Products are known, trusted and demanded everywhere. This is public approval of our half-century of service in meeting the exacting wants of pure food buyers.

ARMOUR AND COMPANY, Chicago

The finest preparation of its kind on the market today is The Great Food Drink

Malt Marrow

Be sure that you ask for and get McAVOY'S. The only MALT MARROW that there is.



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E. PRITCHARD

Packer and Manufacturer
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“EDDYS”
BRAND

**Canned Foods,
Jellies, Preserves,
Plum Pudding,
Sauces, Table Delicacies,**

and

**PRIDE OF THE FARM
Tomato Catsup**

**Bridgeton, N. J.
and 331 Spring St., New York**

AN IMPORTANT ANNOUNCEMENT

TO THE JOBBER AND RETAILER



The St. James Importing Company, of New York and London, the well-known distributors of Waw Waw Sauce, has been bought by men of strong financial backing who bring to the Company not only ample resources but also the full benefits of many years' experience with one of the largest and most successful manufacturers of food products in the country.

Plans are already laid to place Waw Waw in its deserved position as the King of Table Sauces.

We cannot make Waw Waw Sauce itself any better but we can and will make Waw Waw Sauce a better seller.

An extensive advertising campaign in the leading Journals is now in course of preparation. No pains, expense or effort will be spared to make Waw Waw a leader in easy, steady selling, just as it is now a leader in quality.

Full details of the new plans will be mailed to jobbers and retailers throughout the country. In the meantime the already increasing inflows of orders are being filled promptly from our New York warehouse.

SPECIAL—If you are not fully acquainted with the unusual merit of Waw Waw Sauce, write at once and a full size sample bottle will be sent for trial on your own table.

St. James Importing Company NEW YORK

An Interesting Exhibit

Display of Weis Fibre Containers Elicits Most Hearty Approval at Portland Convention.

That the trend of modern times is toward the more extended adoption of once used containers was shown by the comment of Food Control Officials regarding the exhibit of Weis Fibre Containers as used for Milk, Cream, Buttermilk, etc.



The Pint Size. Used Once Then Destroyed.



The Quart Size. Never Refilled or Re-used.

Paraffined fibre containers of various types have been on the market for some time past. It will therefore be interesting to note the several salient features of one which seems to possess many desirable qualities.

Weis Fibre Containers are made of pure Spruce-wood. The ingenious paraffining machine immerses each container so that it fills as it is submerged and drains as it leaves the machine. Thus, a film of paraffine, which is tasteless and odorless, coats and lines the entire surface of the containers. No edges, corners or joints are left exposed. The contents of the container comes in contact only with the paraffine.

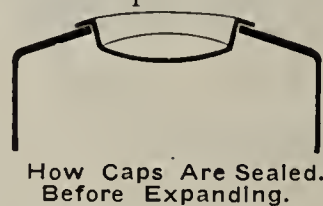
CAPS CANNOT BE REMOVED WITHOUT MUTILATION
—HOW CAPS ARE SEALED.

The ingenious Seal or Cap come in for a large share of favorable comment. Caps are made of same material as the containers. Illustrations herewith show how tightly the caps are sealed into the opening. This is done by an internal expanding device shown below. Larger Sealers are made to Hot-Seal one dozen containers at a time. Through the application of heat, during the moment of expansion, the paraffine on cap and container melts and when cooled forms an air-tight seal.

Milk pours easily. it "cuts off" without running down the sides of the container.



This provides a most sterile, compact, practical and economical delivery method for milk and other food products.



How Caps Are Sealed. Before Expanding.



Expanded and Sealed. Caps Cannot Be Removed Without Mutilation.

Analysis and examinations by the most reliable laboratories of several states prove beyond doubt that milk stays sweet longer in these containers than in re-used glass bottles. There is absolutely no contamination.

An enormous saving of space and weight is effected where these containers replace glass milk bottles. Fully 60% of the space is saved and there is 74% less weight to handle. These figures are especially interesting to those who

handle large quantities of milk, etc.



The Hand Type of Sealing Device.

The manufacturers have taken every means to provide for almost every requirement of dairies, etc., adopting this delivery method. They supply the cases, carrying holders, icing trays, iceless refrigerator cases, etc., and can furnish filling machinery and any other requisites.

These containers are well past the experimental stage. The hearty endorsement of the several practical dairyman, etc., who are using them, together with the increased volume of their businesses, is the best evidence that these containers give excellent satisfaction. See advertisement elsewhere in this issue.

STATE OF NEBRASKA FOOD, DRUG, DAIRY AND OIL COMMISSION.

To Whom it May Concern:—

In the matter of the complaint against the use of egg albumen in baking powder an exhaustive hearing was held, in which both sides to the controversy were represented, said hearing being held on April 7, 1914, and this Department hereby offers the following opinion:

It is the opinion of this Department that white of egg or egg albumen as used in baking powder does not constitute an adulteration under the food laws of Nebraska and that when it is labeled as being present it is not misbranded.

This Department further holds that the ruling by the United States Department of Agriculture, Bureau of Chemistry, covering the matter of egg albumen in baking powder covers the matter fully and said ruling is hereby adopted for the guidance of purchasers of food products in the State of Nebraska.

The further complaint that the use of the water glass test constitutes a violation of the Nebraska False Advertising Law has been fully investigated and in the opinion of this Department the proper use of the water glass test would not be a violation of said law.

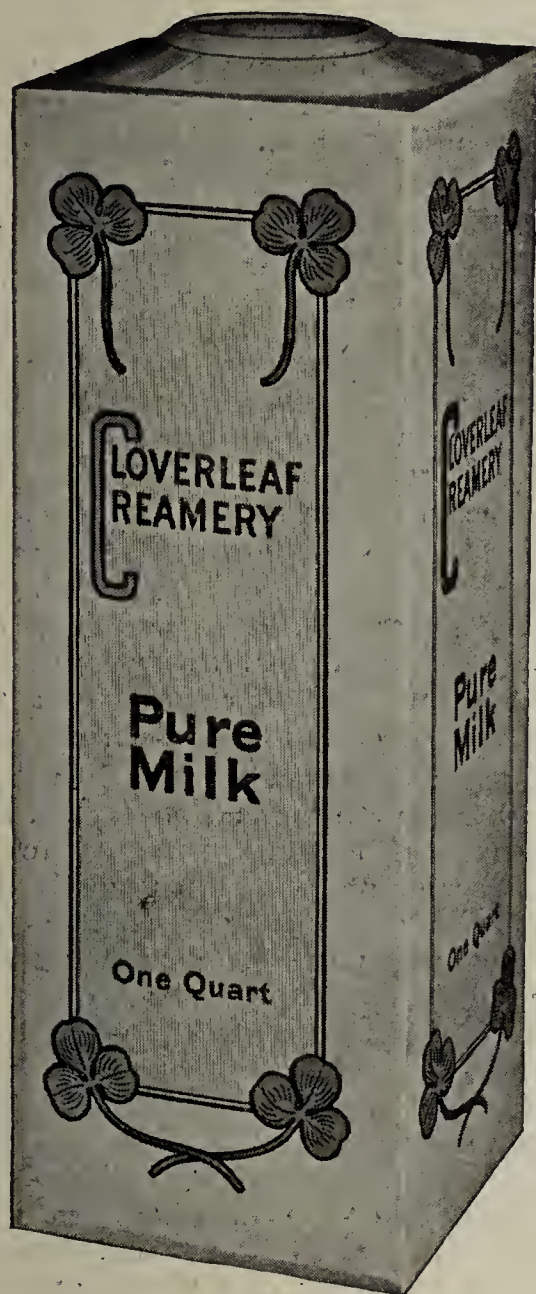
Signed, CLARENCE E. HARMAN,
Deputy Commissioner.

Signed, E. L. REDFERN,
State Chemist.

Dated at Lincoln, Nebraska, the 2nd of July, 1914.

Weis Fibre Containers
PARAFFINE DIPT—USED ONLY ONCE

**Received Most Favorable
and Enthusiastic Comment
and Approval at Recent
Convention of Food Control
Officials**



Made in Quart, Pint and Half-Pint Sizes

Its absolute **Sterility**, its compact form, its light weight, its ingenious Seal, and its many other salient features make it the ideal container for the sanitary delivery of milk, buttermilk, cream, and almost any food products.

You will be interested in descriptive Booklet showing comparative weights and sizes, as compared to glass containers. Booklet and Samples sent promptly on request.

The Weis Manufacturing Co.
145 Union St., MONROE, MICH.

10% More for Your Money

Quaker Oats is put up also in a 25-cent size, nearly three times as large as the 10-cent size. By saving in packing it offers you 10 per cent more for your money. See how long it lasts.



Study Time

**Demands a Breakfast of
Delicious Quaker Oats**

With school-time comes the time for Quaker Oats—the finest form of Nature's choicest food.

It abounds in the elements which active brains require. One large dish supplies the energy for five or six hours of study.

As a food for growth, as a vim-producer, nothing else compares with Quaker Oats.

Don't serve as a dainty only—in little dishes, just to start the meal. Children need an abundance. Begin every school day with a liberal dish. It will better the day.

Quaker Oats

Just the Large, Luscious Flakes

Quaker is made of just the big, plump grains. They have the greatest food value, the most luscious flavor. We get but ten pounds of Quaker Oats from a bushel.

This extra quality means a delightful dish. It means rare aroma and taste. You can have it every morning at no extra price if you simply order Quaker.

Quaker Cooker

We have made to our order—from pure Aluminum—a perfect Double Boiler. It is extra large and heavy. We supply it to users of Quaker Oats for cooking these flakes in the ideal way. It insures the fullness of food value and flavor. See our offer in each package.

**10c and 25c per Package
Except in Far West and South**

DEATH OF DR. V. C. PRICE.

On July 12th, at Chicago, Ill., there passed away a man known the world over for his connection with the food products industry—Dr. V. C. Price of baking powder fame. While he was also prominently connected with the manufacture of other products, notably flavoring extracts and candy, it was his discovery of the method of manufacturing baking powder which gave him the greatest fame.

Dr. Price was born Dec. 11th, 1832, at Troy, N. Y., where he received a public school education. He later pursued his studies at the Eclectic Medical College in New York, afterward at the Bennett College of Medicine and Surgery.

It was while home on a vacation from his pharmacy studies that he was brought to a determination to find if possible some method whereby cakes and



DR. V. C. PRICE.

biscuits could be made to rise by the use of materials that are not indigestible. This resolution was inspired primarily through affection for his mother, who was troubled with indigestion and could not eat the delicacies which were made with soda.

Returning to the college laboratory, the youth, who was still in his teens, began his labor of love and continued experiments until he succeeded in making from cream of tartar a powder that raised light and delicate biscuits and cakes which his mother could eat without distress or injury.

Through the affectionate devotion of this young man to his mother, all humankind have been bene-

fited, and housekeepers especially have cause to cherish the memory of this man through whose labors their duties are lightened and the food they prepare for their families can be made more wholesomely.

The public always looks askance at anything entirely new, especially in the food line, and which revolutionizes ancient traditions, and Dr. Price had a difficult struggle to introduce his baking powder into the homes of this country. He began manufacturing and selling his powder by the ounce, but grocers would not believe the people would buy or use it and they laughed at him.

Not to be daunted, however, the young man determined to succeed and finally sent out men to distribute samples of the baking powder from door to door for the housewives to try, which many of them gladly did. It was through such persevering and intelligent efforts that finally resulted in one of the greatest industries of the world being established.

Dr. Price first established his business of baking powder manufacturing in Chicago in 1861, and continued to operate it for thirty years. In 1891 he sold out the company, and from that time on devoted his energies to extract manufacturing, which business also proved exceedingly successful and in which he was engaged until he retired from active work two years ago. He was a man of wonderful mentality and ability, and continued to direct affairs until the time of his final retirement from business.

Another enterprise which Dr. Price was the means of launching was the National Candy Co., now headed by his son, Vincent L. Price, and more recently he established the Price Cereal Products Co. to engage in the manufacture and distribution of a new cereal product, the result of his own experimentation.

In all of the food product enterprises in which Dr. Price was engaged throughout his long career, there was one idea which he never lost sight of and which accounted for a great deal of his wonderful success, and that was whatever was turned out from his laboratories and factories under his name must be pure and wholesome to the highest possible degree. His name became associated with purity the world over, and it was always his special pride that this was so, it was this splendid reputation he had gained which gave him his greatest satisfaction in life.

Dr. Price was married to Harriet White at Buffalo, N. Y., in 1855, and to them were born six children, four of whom are now living, namely, Russell C. Price and Mrs. A. C. Fischer of Chicago and Waukegan, Ill., Mrs. John F. Hollingsworth of Chicago, and Vincent L. Price of St. Louis. Mrs. Price, his widow, survives him.

Dr. Price had attained the ripe age of eighty-one years and while he had not been in good health for some time, his last illness dated back only six months. He was a man of broad gauge in every respect and was held in the highest esteem by all with whom he came in contact—rich and poor alike. His love for his faithful employes was shown by the fact that instead of prominent business men of Chicago, with whom he had been associated for years being selected for his pallbearers, they came from among his trusted employes who had worked with him shoulder to shoulder for so many years.

Emphatically it may be said that this world is distinctly better for Dr. Price having lived in it and that is the highest tribute that can be paid to any man.

QUALITY FOODS

Nothing which is purchased for the home should receive more careful selection than table supplies.

Greatest food value—purity—delicacy—natural flavor—cleanliness
—all are sought by the discerning housewife.

RICHELIEU

Brand

FOOD PRODUCTS

are packed solely on a **quality basis.**

If it is **Richelieu** it will meet the demands of the most discriminating consumers and will fully come up to the high standard of excellence we have established for this brand.

SPRAGUE, WARNER & COMPANY
CHICAGO



BROMO- SELTZER

FOR

HEADACHES

10¢, 25¢, 50¢, & \$1.00 Bottles.

MADE IN BALTIMORE.
EFFERVESCES EVERYWHERE.

Recent Laws and Rulings

TRADE MARK CASE.

(Federal Court.) A case of some importance involving a question of infringement of trade marks and unlawful competition, is presented in *Tanqueray, Gordon and Company v. Gordon Distilling and Distributing Company*. The complainant Tanqueray, Gordon and Company and its predecessors, the old and famous Alexander Gordon Company of London, England, had been manufacturing "Dry Gin" since 1769. Such gin was contained in bottles of oblong shape bearing a boar's head, with the words "Gordon's Dry Gin" blown in the glass. The defendant, a New Jersey Corporation, manufactured and marketed a "Dry Gin," placing the same in bottles of similar size and shape, bearing labels and displaying a trade-mark consisting of the head of an elderly man in a white circle. Defendant company had been in existence but a few years, having been incorporated in 1909. Blown in the glass of defendant's bottle were the words "Gordon's Dry Gin" and in very small letters the mark "U. S. A." The words, figures and letters on defendant's bottles were the same size, shape and color as those upon complainant's. Complainant brought its bill in the United States District Court, District of New Jersey, to have the defendant forever enjoined from further trade-mark violations and from the further practice of unfair competition. In disposing of the case, the court said in substance that the similarity of defendant's bottle to that of complainant's clearly showed a studied attempt on the part of the defendant to palm off its goods as those of the complainant. If defendant had any intention to distinguish its label from that of the complainant, the most obvious course would have been to use a different print upon its labels. The defendant has put in the hands of retail dealers in gin an instrument of fraud intended to mislead and deceive consuming purchasers, and the evidence of the case established the facts that retail dealers in a number of instances availed themselves of the opportunity of palming off the gin of the defendant for that of complainant. The latter should receive protection against an unfair use by defendant of bottles and labels tending to create an impression or belief on the part of the ordinary purchaser that in buying gin bottled by the defendant they are buying gin manufactured by the complainant. The latter is entitled to a decree against the defendant for profits and for damages, and an injunction permanently restraining the defendant from using a label so similar to that used on complainant's product.

Tanqueray, Gordon & Co. v. Gordon Distilling & Distributing Co., 213 Fed. 512.

(Federal Court.) This is a petition by the P. E. Sharpless Company for a writ of mandamus to the District Court of the United States for the Eastern District of Pennsylvania, commanding it to so reform an order appointing a master in chancery to assess damages in a suit by William A. Lawrence and another against the P. E. Sharpless Company for infringement of a trade-mark upon Neufchatel cheese. The suit was originally instituted in the United States District Court for the Eastern District of Pennsylvania. Two distinct causes of action were alleged; one of them an averment of ownership by the Sharpless Company of a common law trade mark and an infringement thereof by defendants and the other, an allegation of unfair competition in the use by defendants of two certain tin foil package labels for said domestic Neufchatel cheese made and sold by it. The District Court having heard the matter, denied the ownership of a trade mark by plaintiff but decided that the defendants had been practicing unfair competition. The use of the two tin foil labels by the defendants was adjudged to be an unlawful simulation of plaintiffs' label, and to have been used by defendants in willful and fraudulent competition with plaintiffs. The court issued a permanent injunction, enjoining the defendants from any further use on its packages of Neufchatel cheese of said labels, or any like label in imitation of plaintiffs' label. The defendants thereupon appealed to the United States Circuit Court of Appeals, Third Circuit, to have reversed that part of the decree of the lower court which adjudged the charge of unfair competition against them, and plaintiffs, by cross-appeal asked to have reversed that part of the decree which adjudged the issue of a technical trade-mark against it. The Court of Appeals affirmed the holding of the District Court ordering a reference of the matter to a master in chancery to ascertain and assess the damages which had

been suffered by the Sharpless Company through the infringement of the label. The court said in part: "In theory, a technical trade mark is a specie of property, and, when invaded or appropriated, the owner thereof is entitled, not only to protection against the further trespass, but to recover profits issuing therefrom, as incident to and a part of his property right; while in suits for unfair competition the complaint is not for an appropriation of a property right, but for a tort committed by defendant, for which complainant is entitled to recover compensatory damages actually sustained by reason of the wrong.

P. E. Sharpless Company v. Lawrence et al., 213 Fed. 423.

MEAT INSPECTION ORDINANCE VALID—

(New Jersey.) Certiorari by Joseph Feld against the Board of Health of the City of Passaic to review a city ordinance regulating the sale of meat. The contention of the prosecutor Feld is that the ordinance is confiscatory and discriminates in its ultimate operation between him and other citizens of the state, engaged in the business of slaughtering cattle for food. He possesses a license from the State Board of Health authorizing him to engage in the business, and this he insists gives him the right to sell his product in the Passaic markets without the permission of the local governing body.

The ordinance is designed to prohibit the sale of meat in the city, unless the animal furnishing the meat shall have been examined and favorably passed upon, before and after slaughter, by a meat inspector appointed by the federal government, or by a veterinary surgeon or other qualified officer of the city of Passaic, or of a municipality having a system of inspection equal to that adopted by the United States bureau of animal industry. The Supreme Court of New Jersey, speaking through Minturn, J. said: "The ordinance is clearly within the powers delegated to the local board of health by the general legislation upon the subject. P. L. 1887, p. 80; P. L. 1907, p. 485, and also by the provisions of the so-called Walsh Act, under which the city of Passaic is governed. Public Laws, 1912, p. 650. The license of the State Board of Health gave the prosecutor only the power and privilege of slaughtering, and not of selling cattle.

"The power to pass the ordinance being manifest, the only remaining question is whether in its operation it results unjustly or illegally to the prosecutor, since his claim herein is narrowed to that contention. It may be conceded that the operation of the ordinance in Passaic City would absolutely be destructive to prosecutor's business, and yet the courts uniformly hold, upon the saving governmental philosophy involved in the maxim 'salus populi suprema est lex,' that a manifest police regulation of this character shall not receive judicial condemnation, unless it be clearly arbitrary and unreasonable, and beyond the necessities of the case. The ordinance under review possessed none of the infirmities or illegal characteristics which the prosecutor seeks to attribute to it, and therefore its validity will be affirmed, with costs."

Feld v. Board of Health of City of Passaic. 90 A. 672.

MISBRANDING OF INSECTICIDE.

(Federal Court.) The law involved in the sale and misbranding of drugs is discussed to some extent in the case of *United States vs. Two Cases of Sulpho-Naphthol*, recently brought in the United States District Court, District of Maryland. The case is one in which the government seized two cases of Sulpho-Naphthol, a product manufactured by the Sulpho-Naphthol Company and sold in packages labeled "Sulpho-Naphthol," "Inert Substance Water 7%, Insecticide 93%." The Sulpho-Naphthol Company was charged with having misbranded its article in two particulars: First—Sulpho-Naphthol as applied to an insecticide, means that the article so named is essentially either a compound of sulphur and naphthol or a sulphur derivative of naphthol. The product seized was neither. Second—It contained over 10% of water instead of 7% as stated on its label. Upon making a chemical test of the product for the purpose of using the same in court it was actually found that the two cases of Sulpho-Naphthol seized by the government did contain 10% of water. This was a rather unusual circumstance inasmuch as tests made upon numerous different cases of the product showed it to contain but 7% of water. In one or two instances water to

Why Beer is Pure

THE brewers of the United States use the greatest care in the selection of materials, so that only substances of absolute purity and wholesomeness are employed. In order to insure this, it is the uniform practice of brewers to submit their brewing materials to skilled technologists for examination and analysis. It is also absolutely necessary that the utmost care and cleanliness be observed in the brewery in order that the complex processes which the materials undergo before the process of brewing is completed may not be disturbed. It is well known that the slightest infection will cause such disturbances in fermentation that the resulting beer would be unpalatable and unsalable, and therefore they are compelled to exercise the utmost cleanliness in all the processes.

Unlike most other industries, the brewing of beer is, and has been for half a century, under the constant surveillance of the Government. Every barrel of beer manufactured in the United States is produced under the very eye of the Government officials, and the books, provided by strict regulations of the law and the Internal Revenue Department, show to the Government officials every constituent element which enters into the manufacture of every barrel of beer sold to the American consumer.

The brewers of the United States brew a cleaner, more wholesome and more uniform product than those of any other country in the world. It is unquestionably the most popular manufactured beverage in the United States, and from its production the Federal Government realizes an income of \$66,000,000 a year, which income is growing at the rate of six per cent annually.

the extent of 8% was found. The Sulpho-Naphthol Company recognized the fact that the two cases in question were misbranded and stated through its counsel that it realized that every honest manufacturer had a vital interest in placing a broad and liberal construction upon the misbranding provisions of the Insecticide Law. The company said that it was willing to adopt another name in view of the fact that the use of the word "sulpho" was misleading in that it led purchasers to believe that the article contained sulphur. A manufacturer may not give to his product a name which indicates the presence in it in substantial quantities of a constituent when such is not a fact. The court in disposing of the case said, "Insecticide labeled 'Sulpho-Naphthol,' while containing less than four-tenths of one per cent of sulphur, the presence of which was due to chemical or accidental impurities in the materials employed, without affecting either for good or ill the usefulness of the article, was misbranded within the meaning of the Insecticide Act (U. S. Comp. St. Supp. 1911, p. 1368.) In view of the candid, enlightened and public spirited action which the claimant has taken, the decree of condemnation will be without costs to either side."—United States vs. Two Cases of Sulpho-Naphthol, 213 Fed. 519.

WATER GLASS TEST IS THING OF PAST.

No Use for Egg Albumen in Baking Powder Now. Decision of Judge Dietrich Brands as Unfair the Popular Fake Demonstration as to Strength of the Product.

The water glass test as a means of distinguishing between baking powders is no more; according to a decision of Judge Dietrich of the United States Court, handed down on last Thursday, agents and salesmen for those concerns selling albuminous baking powders are prohibited from making use of this pseudo "test" and as a result, albumen will probably be left out of the product by the few companies which use it.

The question of the enforcement of the ruling by the State Food Commissioner Wallis, which had for its object the shutting out of Idaho of those companies using egg albumen, is also settled by the decision, which provides against the enforcement of this ruling on the ground that the use of albumen is not in itself injurious to health. Such a claim had never been put forth by the pure food bureau, but the position was taken that the use of the albumen served no useful end and therefore, as a negative property, was a deleterious ingredient.

The explanation by Commissioner Wallis of a number of telegrams that passed between himself and George P. McCabe, a Chicago attorney, relative to the conduct of the case, and which were used in evidence during the trial, makes clear the position of the Commissioner in the premises. Mr. Wallis' explanation follows:

"The letters and telegrams which passed between myself and George P. McCabe, an attorney of Chicago, in the time I have been state dairy, food and sanitary inspector of this state, are, like all other records of my office, open for public inspection at any time. I have nothing to conceal with reference thereto. I voluntarily turned over to the attorneys for the Crescent Manufacturing Company the whole of this correspondence and allowed them to introduce in evidence without objection, any part thereof they desired.

"Mr. McCabe is a personal friend of mine of 22 years' standing. He was, at the time I assumed office, and for several years afterward, a member of the board of food and drug inspection of the federal government and solicitor for the department of agriculture. In this capacity I frequently consulted him with reference to questions concerning the interpretation and enforcement of the pure food laws.

MCCABE HAS INTEREST.

"After his retirement from office he became a practicing attorney in Chicago and numbers among his clients at least one manufacturer of non-albuminous baking powder. His company was naturally interested in the trial of the injunction case which involved the legality of the use of minute quantities of albumen in baking powders. This interest naturally arose from the false and fraudulent 'water glass' tests or comparisons which makers of powders containing albumen have been accustomed to make for the purpose of showing the inferiority of other powders to their own.

DENOUNCES WATER GLASS TEST.

"My ruling against the use of albumen in baking powders was, however, made months before the passing of any part of

the correspondence here published and it was only after the injunction suit was filed that Mr. McCabe asked me to keep him advised, at his expense, of all developments in the preparation for the trial of the case, which I did, and I also at the same time asked his advice concerning certain details of the preparations which the food commissioners of those states which have ruled against egg albumen were making for having the whole matter fairly tried out in the courts.

"The most eminent food specialists and chemists in the United States have declared that egg albumen in baking powders serves no useful purpose, and have denounced the false and fraudulent 'water glass' tests which are frequently made by reason of its presence. The fact that the court in its decree enjoins the further making of such tests in this state establishes their false and misleading character when used to promote the sale of baking powder containing egg albumen, which is practically all for which we contended.

"The mere fact that manufacturers of baking powders not containing egg albumen might attempt to take advantage of rulings made by pure food officials for the purpose of preventing fraud and deception in the sale of food products, when such rulings happen to be in their favor, should certainly not be used for the purpose of prejudicing the public mind against those officials who are honestly and fearlessly attempting to administer the pure food laws in the interest of the public safety and welfare."

Since the entire ruling was aimed directly at the use of the so-called water glass test, and as this has been eliminated completely as a result of the decision, the court's finding constitutes a distinct victory for the cause of pure food in Idaho.

(From The Twin Falls, Idaho, News.)

A VICTORY FOR PURE FOOD.

Users of baking powder in Idaho are distinctly better off as a result of the decision of Judge Dietrich in the United States Court, eliminating from use the so-called water glass test for baking powders.

The fact that manufacturers of baking powder in which albumen appears as one of the ingredients are not prohibited from the sale of their product under the terms of the decision is of minor importance compared with the value of the permanent injunction against the use of this fake "test."

Through the elimination of this particular piece of buncomb, egg albumen in baking powder is robbed of its sole excuse for existence. It adds nothing to the value of the goods and its use in the first place was occasioned solely because its presence in the product occasioned a greater amount of effervescence when mixed with a little water than is the case with baking powders in which there is no albumen. This trick constituted the water glass test, and a clever demonstrator has no trouble in convincing his audience that the greater the effervescence the greater the "strength" or leavening power of the powder.

The elimination of the test within the confines of the State amounts to the same thing as the elimination of the useless albumen as a baking powder ingredient, and the result constitutes a distinct victory for Commissioner Wallis and the cause of unadulterated food, to say nothing of all the honest manufacturers of baking powder such as the Royal, Doctor Price, Folger & Company, K. C., and many others whose faces have been set against the use of albumen from the very first.

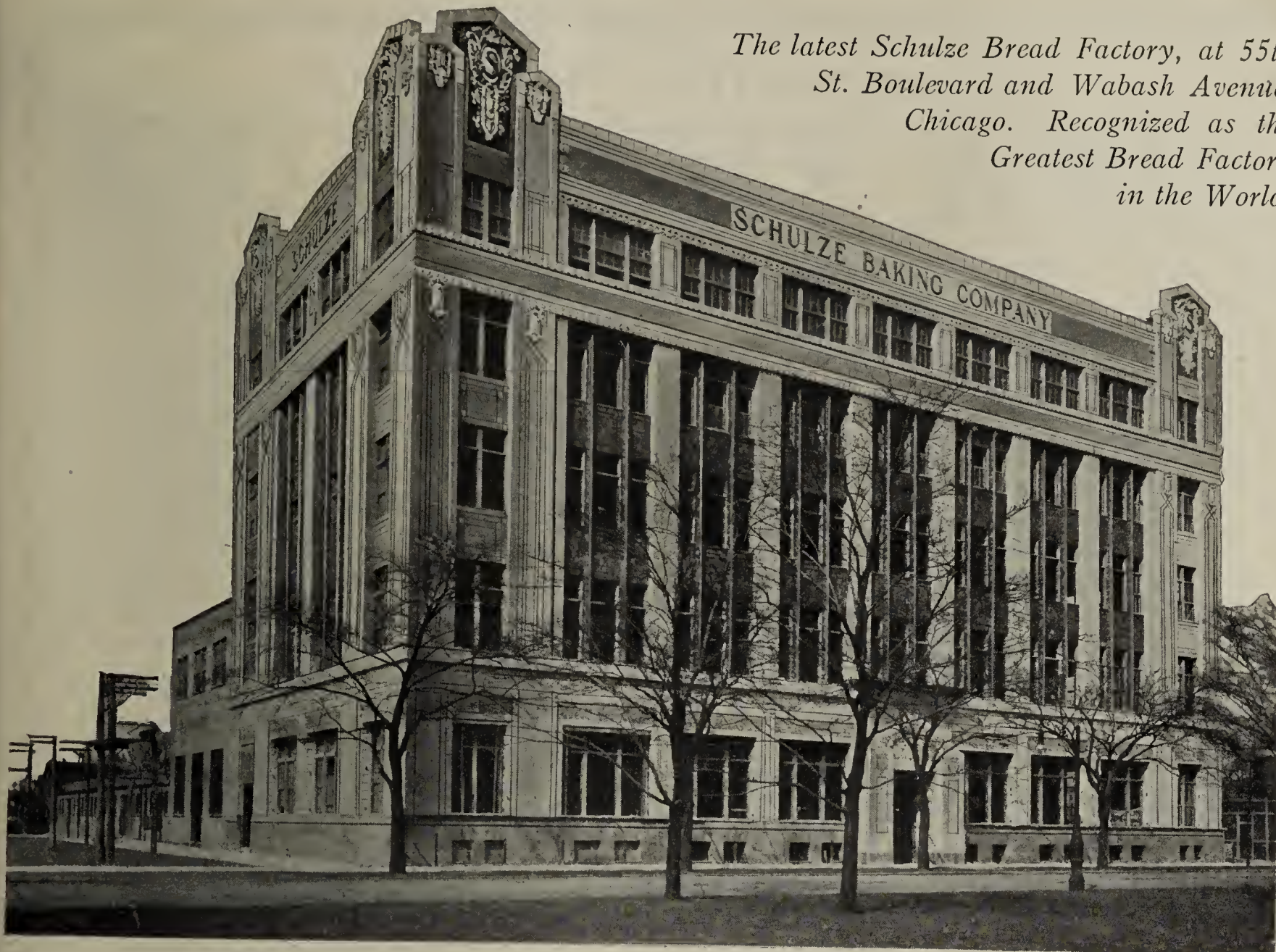
Commissioner Wallis should be well satisfied with the result of his efforts in this case.

(Editorial from Twin Falls, Idaho, News.)

INTERESTING FACTS ABOUT THE KOLA NUT.

The kola tree is indigenous to Liberia. A number of the nuts are contained in a single fruit. The nut is not exported. Among the natives it is in general use and a comparatively large local trade is carried on in the Republic, conducted chiefly by former residents of Sierra Leone. There are two varieties of the nuts—the red and the white. The natives eat the nut raw; especially when on long and tiresome trips. It is said that they relieve the effects of hunger and especially thirst. The nuts are retailed at a cent each in Liberian port towns, but if bought in quantities for export could be secured much cheaper and for trade goods in exchange. The kola nut surpasses all other known fruit in alkaloids. It is a very active stimulant, and is said to remove the stupor of inebriety. Its medicinal properties are said to be exceedingly effective in asthma, headaches, sea-sickness, and in feebleness of the circulatory and nervous systems, but as a drug its value is still undetermined.

*The latest Schulze Bread Factory, at 55th
St. Boulevard and Wabash Avenue,
Chicago. Recognized as the
Greatest Bread Factory
in the World.*



New Home of Schulze's Bread

Sunlit, sweet and sanitary throughout, this great new Bread Factory is typical of Schulze quality and excellence.

Food commissioners—inspectors—men whose first thought is, “Is it clean? Is it pure? Does it measure up to the spirit as well as the letter of the Law?”—these men will find in the new Home of Schulze’s Bread an example which is bound to inspire every food manufacturer to higher ideals of purity, cleanliness and wholesomeness.

Washington, D. C., Correspondence

(From our Staff Correspondent.)

Washington, Aug. 31.—But for the fact that so much money is involved, some of the questions with which the Bureau of Chemistry is dealing, under the net weight law, would warrant many a laugh. Yet the law is no joke either to the food or drug manufacturer, or any of his executive force.

The fact that it took much time and much argument to determine whether the wrapping around a ham is or is not a container shows the seriousness of the matter. To outsiders it may seem trivial but certainly not to those whose business it touches, as to the profit or loss on a particular commodity.

Among the questions under consideration in the bureau are as to whether the packers of olives shall be required to stamp the combined weight of the olives, and the brine that preserves them, on the container, or whether they shall be allowed to state merely the weight of olives or shall they be required to state each weight separately.

Another matter of similar character which the bureau is considering involves how the oyster canner shall mark containers, whether the label shall state the net weight of the oysters with no more liquor adhering to them than will stick when they are taken out of a tub with a wire net, or whether it shall show the net weight of the oysters and the liquor that was in them when they were shucked and prepared for canning.

Trade practice has taught the public what to expect in a can of cove oysters. Any excessive quantity of liquor, the result of an intent to deceive, carries with it the inevitable penalty of a loss of patronage. A rule by the bureau or anybody else that works hardship upon the trade means that the consuming public must pay the bill, either by reason of an increase in price of the customary unit, or in the reduction in the size of the container. The ordinary can of oysters satisfies the ordinary consumer. Any material change forced by the artificial means of applying a statute, means more cost to the consumer, until the point is reached where there is no profit for either canner or customer.

What is said with regard to the oyster applies with equal force to the sardine-in-oil container. Should the weight of the sardine, without the olive oil or other liquid that may be used in preparing the article, be stated separately, or the net weight of "sardines in olive oil" be stamped upon the can? Sardines without some sort of dressing are not generally known to consumers. There may be such things, but what the man wants when he asks for sardines in oil is something which both buyer and seller know about. The buyer knows he will get a considerable quantity of oil or mustard in combination. The combination is what he desires to use in making a sandwich or a relish. Unless the package is patently fraudulent in having more of the dressing material than is customary, he has not the slightest interest in knowing the quantity of it.

As to whether there should be a separate statement of the weight of the meat and the brine in containers of salt meats, which is also one of the questions under consideration, that can hardly be called a problem in which the consumer has a deep interest. As to whether the dealer is in need of such information on the barrels or other containers, comes pretty near answering itself. The dealer who does not know what the out-turn of a barrel will be when he sells at retail, will not long continue in business. It might, in rare instances, be a help to him in making a quick calculation, but would such help be worth the expense it would entail upon the packer, or shipper, in event an ordinal package were divided and sent to different dealers?

In the final analysis, it is a question of expense, to be borne, in part, by every one concerned. It is no answer to say that the expense would be small. Many small expenses, even as little drops of water make the mighty ocean, wipe out the margin between profit and loss. It is the failure to realize that small expenses are dangerous factors, that places governmental regulation in the list of things that have tended to hoist the cost of living. Few Americans realize that every demand made for the betterment of their condition by means of legislation carries with it a long and strong bill of expense.

No alteration in the way of doing things, by means of a governmental agency is ever suggested as being possible with the force employed in any branch of the government service. There is never an absorption of the cost, to use a railroad phrase. It is always an added one. Exceptions to the absolute accuracy of that assertion merely perform the usual function of exceptions.

One of the objects of law is to prevent the dishonest individual from placing the honest man at a disadvantage. Contrary to the popular belief, the food and drug laws, when sanely administered, are of more benefit to the honest manufacturer and the honest dealer than to the consumer. The much talked about consumer takes little interest in what so many public officials believe they are doing for him. If it were possible to get accurate data on the subject, the chances are that more complaints as to frauds and deceptions in foods and drugs come from business rivalries than from objections by consumers. The latter, when they do run across a fraud, shrug their shoulders and resolve not to be stung again in the same place. The trade competitor knows that unless he takes active steps, his business is apt to suffer by reason of such competition.

So far as now known the net weight law has not added anything material to the total cost. For keeping the law from being made an excuse for more expenses, Dr. Alsberg deserves credit, but thus far there have been no official or unofficial press agents to sing his praises. That also is to his credit among those who are able to appreciate how other laws have been used for such purposes. It is worth nothing in this connection that Dr. Alsberg is dealing with the subjects before him in the serious way they are entitled to be handled. He is not seeking publicity in connection with any work, and the public is getting the benefit of his determination to proceed upon the assumption that food and drug manufacturers are just as honest as other mortals of similar standing in other lines of human endeavor. This makes for the best kind of public service. The law is the law, no matter what manufacturers or anyone else may think to be the reason some of the legislators voted for it.

There are many men of the Alsberg kind in the Department of Agriculture, impressions created during the "investigating" days of 1911 and 1912, to the contrary notwithstanding. And it is for the good of the country that, as a rule, there is usually more sense in the execution than in the making of laws relating to the food and drug, and probably other businesses of the land.

IMITATION EXTRACTS.

Artificial extracts are prepared from synthetic benzaldehyde, a coal-tar product. The flavor of both products is that often obtained by the housewife by the use of bruised peach leaves.

As has been said, it is impossible to prepare several of the common flavors from the original fruit. When such is the case, resort is had to the synthetic product most nearly corresponding in flavor to the genuine fruit. This flavor in most cases is due to chemical bodies known as esters, aldehydes, and alcohols which are produced in the growth of the plant. Commercially, like bodies are manufactured from fusel oil, and other higher alcohols. Each flavoring extract manufacturer has his own secret formula for the preparation of each class of extracts; the predominating ester in each case is, however, usually the same, acetic and butyric ethers being most commonly employed. This class of extract is usually colored with coal-tar products, and the Federal and most of the State laws require that they be labeled "Imitation," "Artificial," or "Substitute."

OUR AIMS AND PURPOSES

To produce pure wholesome candy, truthfully labeled, under sanitary conditions, and to assist others in doing the same.

To promote uniformity between State and National Laws and Rules and Regulations governing their enforcement.

National Confectioners Association of the United States

CHARLES F. SIMES, President

W. C. HUGHES, Secretary

V. L. PRICE, Chairman

OFFICES: 415 Pine Street, ST. LOUIS, MO.

Indiana Correspondence

(From a Staff Correspondent.)

Indianapolis, Ind., July 31.—Intensely hot weather that prevailed in Indiana during the latter days of June and the first three weeks in July caused untold losses in perishable foods throughout the state and may lead to a more systematic reliance upon cold storage arrangements for food-handling establishments. State officials also believe that the intense heat may have had something to do with the discovery of preservatives in many samples of food that were examined at the state laboratories.

Cider, ginger ale, fig jam, pop and other products examined in the state's pure food laboratories during the month of June showed the presence of benzoate of soda and saccharin, and it is understood that results of examinations this month will show their presence in some foods.

In June also alum was found in pickles. Some of the pop examined was colored artificially and this fact was not stated on the label, thus making the product illegal. Inspectors from the state board visited 1,062 food and drug handling establishments during the month of June. The list of inspections covered seventy-five towns and cities. Of the sixty-five dairies inspected, only one was rated as "excellent."

The dairy conditions throughout Indiana have been such that the State Board of Health has been forced to a rigorous campaign against insanitary conditions therein during the present year. The presence of much dirty milk in the state still is noticed, although the campaign for clean dairies has continued now for several months. Thirteen of the dairies inspected last month were declared in "good" condition, seventeen were only "fair," twenty-one were "poor" and thirteen were in "bad" condition.

The inspectors visited 427 grocery stores during the month. Nine of these came within the "excellent" class and this is considered unusual, since the hot months make it extremely hard for grocers to keep perishable supplies in good condition without a refrigeration system, and that is practically impossible for the grocers in the smaller towns and cities of the state.

ON BOARD FOOD AND HEALTH SPECIAL TRAIN.

The Health and Food Special Train is on its way to the Copper Country. For the past few days the special has been slowly making its way along the Minn., St. P. & S., and the C. N. & W. Friday the train was in Gladstone and Escanaba. The enthusiasm and interest was exceedingly gratifying. Crowds of people greeted the train at both places. Favorable comments were heard on all sides.

The exhibit on Fake Cure-alls, Fake Medicines and Fake Beauty remedies attracted attention. That people pay \$1.00 for a bottle of sugar and water for a catarrh cure, or \$2.00 for a small vial of sugar pellets to cure appendicitis, is clearly illustrated. Epsom salts colored pink and perfumed are sold as a complexion remedy. Borax put in a neat package and clothed with a fancy name brings 75 cents as a shampoo powder. The value of testimonials is demonstrated. Testimonials are shown that tell how five people recovered from consumption by the use of a consumption cure. All five are now in their graves, but their testimonials read that they were cured.

Dr. A. H. Miller, Health Officer, Gladstone, said: "The Health and Food Special Train is the best object lesson on pure food and sanitation my people ever had a chance to learn."

A mechanical demonstrator shows how one baby out of every seven born dies before it reaches the second year of its existence. Advice to mothers on the proper care of infants, and bulletins on this important topic are freely distributed.

Everybody is interested in the extermination of the fly. That flies are born in filth, live in filth and carry filth to your food and to your sick rooms is clearly illustrated by means of models on this subject. Bulletins are given away telling you how to prevent flies from breeding in manure piles and other places.

The exhibit on tubercular infected meat and the lecture given by Dr. E. J. McLaughlin, Federal meat inspector, who is in charge of this exhibit, created enthusiastic attention.

Three hundred and twenty-one of the groceries were rated "good," 176 "fair" and eleven were "poor." Only one of sixty-six drugstores inspected was rated as "excellent." Seven bakeries inspected were in "excellent" condition and an equal number of these food-handling places were declared "bad." Eighty-one bakeries were classed "good" and sixty-six as "fair." Of twelve slaughter houses inspected nine were rated "fair" and three "poor." But one of twenty-six ice cream parlors inspected was clean enough to be rated "excellent." Inspections also were made of poultry houses, fish markets, canning factories, fruit stores, flour mills, lunch carts and pharmaceutical houses.

Anent the lunch cart investigations, a situation has arisen in this city, which is the first of its kind that has appeared in Indiana, so far as is known. The Board of Safety of this city entered an order, requiring all lunch carts to be driven off the streets. The lunch cart owners protested vigorously against the order, but it was enforced and the police of the city arrested all owners who sold edibles on the streets. The cases were taken to Police Court and sustained there by Judge Deery. Then test cases went up to the Circuit Court of Marion County where they now are pending. The technical charge against the lunch wagon owners was "selling by station."

Thirteen prosecutions by the state inspectors for violations of the food and drug laws were instituted during June, according to the report just made public by Harry E. Barnard, State Food and Drug Commissioner. Two cases were brought because of the sale of foods not properly covered. Four bakers were fined for maintaining insanitary bakeshops. One dealer was fined for operating an insanitary bakery and meat shop. A bottling works at Indiana Harbor paid heavy fines for selling pop containing benzoate of soda. The fines during the month aggregated \$317.70. Of 114 samples of food analyzed at the state laboratories, forty-two were declared to be in violation of the statutes. Two samples of alleged butter were declared to be oleomargarine. Seventeen of the fifty-five samples of milk contained visible dirt.

Specimens of the various organs of both cattle and swine are prepared in a very unique manner and cannot fail to create interest among Dairy Farmers and others that will eventually wake them up to the fact that this disease must be reckoned with in the promotion of dairying.

Cloverland is the coming dairy country of Michigan. Great interest was shown in the exhibit on dairying. Three rooms have been partitioned off in the car. They represent the interior arrangement of a small dairy house. All are equipped with the latest utensils for securing clean milk. A practical model cow stall that can be built by anybody and that will keep cows clean is shown.

The typhoid death rate of Escanaba has been very high. It was due to the contaminated water supply. Escanaba will soon have a hypo-chloride plant for sterilizing the water. A new sewage disposal plant will be installed. A movement for a municipal garbage disposal plant has been started. Mayor Chatfield of Escanaba said: "This exhibit brings a matter to the attention of our people the value of which cannot be overestimated."

Mrs. A. H. Ryall, the only lady State Food Inspector in the Northern Peninsula in commenting on the exhibit, said: "This exhibit is the greatest educational exhibit that I have ever had the pleasure of visiting." Mrs. F. L. Andrews, president of the Escanaba Woman's Club, said: "There is so much to learn in these two cars on pure food and sanitation that I wish you could stay here a week instead of a day."

This train will be in Houghton, Wednesday and Thursday. Dollar Bay, Friday forenoon, 7:45 to 9:45. Lake Linden, Friday forenoon, 10:00 to 12:00. Larium, Friday afternoon. Calumet, Saturday. Ishpeming, Monday afternoon, Aug. 24, and Tuesday morning, Aug. 25. Negaunee, 2 hours, Tuesday. Marquette, Tuesday afternoon and Wednesday morning, Aug. 26. Newberry, 2 hours, Wednesday afternoon. Sault St. Marie, Thursday, Aug. 27. All week at Grand Rapids Fair.

JAMES W. HELME,
Dairy and Food Commissioner.

A SYSTEM

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**For the Retailer, Publisher,
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**NATIONAL RATING
LEAGUE**

6231 STEWART AVE., - CHICAGO



KINGSFORD'S CORN STARCH

THAT old standby, Kingsford's Corn Starch, is very new-fashioned indeed since housewives are looking for purity in food products, nutritive value and moderate cost.

Owing to its extreme delicacy and purity, Kingsford's takes the full flavor of any kind of seasoning. With it can be made dozens of dainty desserts and appetizing dishes that give variety to the home table.

You can have no idea of the possibilities of Kingsford's if you have been using ordinary Corn Starches and inferior substitutes, which are at the same price as Kingsford's.

See that you are given the original and genuine Kingsford's Corn Starch of Oswego; prepared by the careful process that has made Kingsford's the finest Corn Starch for over sixty years.

Send your name today for Cook Book 00, that tells all about making dainty desserts—and gives 168 recipes for all kinds of dishes.

National Starch Company
NEW YORK

Michigan Correspondence

The Michigan Department has done considerable exhibiting in the past three years, but the most effective exhibit we have had to date was our exhibition train, which we ran over the State last summer. A number of other States have already run exhibit trains and those of you who have had experience along this line I believe will agree with me that this method reaches more people than any other. It not only reaches more people, but it reaches people in remote sections of the State who would probably never have an opportunity to know what the department was doing.

In Michigan the State Board of Health co-operated with us. Each department secured a 60-foot baggage car and we installed our exhibits in these. Arrangements were made with the railroads over which we traversed to furnish us with an engine and crew, so that our train was hauled from station to station without any trouble or delays.

The length of time that we stopped in a place depended on the size of the town. We never made a stop of less than one hour. Our longest stop was in Detroit, where we stayed three days. The majority of the others were from two hours to one-half a day. This gave the people plenty of time to go through the cars and have everything explained to them. We carried five men from each department in each car as demonstrators. The train was on the road from the 1st of August to the 29th and was stationed at the various fairs during the greater part of the month of September. We traveled in all about 960 miles, making about 50 stops. We were greeted everywhere by good crowds and it is estimated that 60,000 people passed through the cars, listening to the talks of the demonstrators, viewing the exhibits and carrying quantities of bulletins that explained the things they had seen in greater detail. In this manner education in food and health topics reached many who did not have the opportunity of visiting the train.

The exhibit put out by this department was of the usual type. It could be roughly divided into four divisions. In one end of the car we had an exhibit on dairying and dairy farming; in the center on one side we had an exhibit on foods and food products; on the other side a small exhibit on weights and measures and in the opposite end of the car an exhibit on drugs and patent medicines dubbed the "fakes and frauds" exhibit.

This is the way our car looked to an outsider:

"The Dairy and Food car was of keen interest and carried its lesson to every farmer, housewife, user and purchaser of foods and drugs. Commissioner James W. Helme's vigorous campaign against 'cure all' remedies, beauty lotions and other doubtful productions which have been placed upon the market is well known and a display of these articles was effectively presented. The purchaser was told just what is contained in the packages sold and its practical efficiency.

Many adulterated and impure foods were shown, foods that are being sold to unknowing purchasers. A new law, effective August 14, makes it unlawful to present any misleading advertisement. Specimens of such deceptive advertising were on display and purchasers learned that they have been paying fancy prices for oleomargarine under the belief that they were buying butter or securing chicory though paying for coffee.

Another law gives the Dairy and Food Department the authority to inspect weights and measures so the methods by which the purchaser has been cheated out of a goodly portion of what he paid for is unusually timely. On a regulation peck measure filled with potatoes was the placard "What we should get," on a partially filled measure was "What he does get" when the dealer uses the common bottomless measure; while above six or eight potatoes was the telling legend, "What he don't get." Berry boxes which cause the consumer to lose four quarts out of a bushel looked familiar. Dented measures, drilled weights and scales which had been tampered with were on display.

That some food manufacturers really evade the law governing the correct labeling of goods, was proven by the considerable number of packages which are often seen on the dealers' shelves. The use of copper sulphate in coloring vegetables was clearly demonstrated while coal tar colors that are used in candies were brought forcibly to your attention by seeing pieces of wool yarn shown along with samples of candy, dyed with the dye which was extracted from the candy.

Considerable attention was paid to the dangers of impure milk and graphic illustrations of the filth which is found in

this popular beverage are in evidence. A model dairy arrangement, together with the latest equipment, was especially interesting to farmers and dairymen. Among other things was seen a model of a cow stall which can be built by any farmer and is satisfactory from every standpoint. The importance of milk as a food was impressed upon visitors by a comparison with other food values, making a most effective argument for the cheapness and nutriment of milk.

An exhibit of meat affected by tuberculosis was a source of educational interest to all. The specimens were taken from slaughtering establishments by Federal meat inspectors. In connection with this, a lecture was given by Dr. Clark H. Hayes of the United States Department of Agriculture.

"Mothers' milk for babies—cows' milk for calves" was the title of a poster that brought out the reason why so many children die in infancy. The fly also came in for an added indictment as the car emphasized the point that 90 per cent carry with them the germs, of typhoid, cholera infantum, tuberculosis or infantile paralysis, so the slogan adopted reads, "No filth, no flies—kill flies, save lives."

An exposure of dangerous drug "cures" was made and the abuse of testimonials shown. For instance, five testimonials told how the individuals were cured of consumption by taking "Nature's Creation," a fake consumption cure, while the death records show that the "cured" were in their graves.

Many other fake drug preparations were exposed by means of placards which explained in detail the nature of the preparation, what was claimed for it, and what it would do in actual practice.

The entire equipment of the train was furnished gratis by the railroads, with the exception of the Pullman coach. The Lake Shore & Michigan Southern Railroad furnished this department with a 60-foot baggage car, while the Michigan Central furnished the Board of Health with a similar car. The roads over which the train ran cheerfully furnished us with a crew and an engine and the train was handled during the entire trip in a most excellent manner. It was only due to this benevolent attitude on the part of the railroads that this educational propaganda was possible.

MICHIGAN STATE DAIRY AND FOOD DEPARTMENT SPECIAL BULLETIN.

"Going Up."

Mr. High-Priced-Meat, after doing several amateur aerial stunts during the past year, has finally joined the professional ranks and made an out-of-sight ascension and gone to Europe. Now that the balloon has gone out of sight, there is nothing for the spectator to do but look around and wonder what to do about it.

The public should at once get educated on what constitutes a cheap balanced ration for the human animal. Two kinds of foods are necessary for human life. The carbohydrates, which furnish heat and energy, and the proteins, which repair the bodily waste. The first are obtained by starchy or fat foods and are easily and cheaply obtained from potatoes and the cereals. Protein to repair bodily waste has generally been obtained through meat. But there are other sources of protein much cheaper. A working man needs three ounces of protein daily to repair the bodily wastes. Before the balloon went up this could be obtained in beef steak for 17c. Some vegetable foods contain a large amount of protein. Three ounces of protein in the form of beans can be obtained for one-third what it costs in beef steak. The moral to the housewife is to feed the "old man" more beans and less beef-steak. Peas and lentils are also rich in protein. A quart of milk has more food value than a pound of meat, and is more easily digested. Cheese has a much greater food value than meat, pound for pound. Canned salmon has a much greater food value than any meat and costs less. Meat is not necessary for human existence. This is maintained by as great an authority as Dr. Kellogg of Battle Creek, who has raised a family of twenty-two children and ought to know from experience. Potatoes and cornmeal are the cheapest form of starchy foods. Michigan produces more beans and potatoes than any state in the Union, and is third in the production of cheese and milk. Michigan people ought not to be embarrassed because meat has taken a flyer. Moreover, beef is often tubercular. Pork has at times the trichina worm, and mutton is sometimes "measly," which contains the germ of the tape worm, so we are missing a lot of things if we don't eat meat.

Beer, the National Beverage

A Natural Food Product

While most people are willing to concede that beer is the most popular beverage of the day, comparatively few know just what beer is, or how it is made. There is a very general confidence that it is a pure product, and it is generally known that the brewers of the United States were among the first advocates of a pure food law.

Beer is a mild stimulant, supplying one of the most imperative needs of man's nature, yet rarely leading to excess. The constant growth of the brewing industry, and the upward trend of the beer sales, despite fanatical legislation, gives beer the right to be called the national beverage.

The brewers of this country take pride in the cleanliness and in the absolute purity of their product. Their brew-houses stand open to the public, whose inspection is invited. They are glad to have people visit their plants, see how beer is made, and thus learn how appropriately beer has been called "liquid bread."

The making of beer bears a striking similarity to the making of bread, the chief difference being in the amount of grain employed and the amount of water added. Bread is baked, but beer is boiled—one is a solid food, the other, a liquid refreshment.

LIEBIG, the great German chemist, has described beer as "liquid bread." PASTEUR, the eminent scientist, earnestly advocated the use of beer in moderation.

Dr. Charles F. Bolduan, Chief of Division of Public Health Education, Department of Health, of the City of New York, in an article entitled: "How to Eat for Health and Wealth in Warm Weather," published in the New York World on June 28th, says: "Beer, when taken in moderation and with meals, can be made a valuable article of diet. One glass of beer (half a pint) contains two-thirds as much food value as the same quantity of milk, and considerably more than that of one egg."

Beer has always been regarded as a popular beverage, pleasing to the taste, refreshing, and a health-giving food.

Henry Watterson, dean of the American journalists, says that the introduction of beer into America has done more for temperance than all the temperance societies combined, and he adds that:

"Beer was invented, one might fancy, to smooth away the cares of life and the work-a-day world, satisfying at once the spirit and the man."

Ohio Correspondence

(From our Staff Correspondent.)

Columbus, Ohio, July 31.—For two months, beginning the middle of August, the people of Ohio will have the question of pure food and food sanitation put up to them in the way of forcible object lessons. With a thoroughness never before attempted the state food department will make use of the agricultural fairs to advertise what it is doing as servants of the people to promote health and weed out fraudulent practices. This will apply not only to food staples and luxuries, but the drug evil will be shown up in all baneful effects. The whole will be a guide and a warning. Many thousands of people can thus be reached who ordinarily would have little knowledge of these vital matters.

Preparations for the county fair exhibit are well under way. The display will be quartered under a large tent, 28 by 51 feet, and space divided equally among the bureaus of dairies, foods, drugs and weights and measures. The exhibit, final details of which are now being got in shape, will be shipped to Jefferson County in time for its first date, the week of August 15. It will be kept on the road continuously for eight weeks.

Following are the principal features: Samples of foods, drinks and drugs, showing comparison in adulterated and unadulterated articles; sanitary and insanitary conditions in various phases of food-producing industry; dissemination of information relative to the administration of the dairy, food, drug and weights and measures laws; special display of eggs of many grades in various stages of decomposition, and candling devices used in determining their quality; photographs of different conditions, lawful and unlawful, and placards representing them; an assortment of fraudulent weights and measures which have been condemned and confiscated; packages and labels with analysis of fake, pure and impure drugs and patent medicines; special display of opium smoking outfits, various utensils used in cooking and preparing opium and cocaine, and morphine syringes and samples of narcotics.

For the State Fair, held at Columbus the week of August 31, an exhibit of greatly enlarged proportions will be housed in one of the great halls on the grounds. For that purpose 1,500 square feet has been reserved. A feature that created such great interest a year ago, that of a sanitary and an insanitary grocery placed side by side, will be repeated, with some new effects. Large quantities of literature will be distributed at these various fairs, and a force of inspectors will be present to give talks and answer questions. It is felt by the department that more good can be done by these exhibitions than by the expenditure of many times their cost in other ways.

The bureau of dairies has begun the second complete and systematic inspection of all creamery establishments in the state. This work has been under way since the first of July. Many improvements are noticed as a result of the previous inspection, and it is gratifying to note the interest the creamery industry is taking along the line of co-operation. No new or unusual conditions have recently presented themselves. Several new creameries have started operations, and with few exceptions all are showing a healthy increase in business.

The cream test scale specifications having been adopted by the Agricultural Commission, are now enforced and all scales not conforming to them are condemned. Results of this work have shown a marked improvement in the system of testing by the operator. A noteworthy reform is that more attention is being given to the Babcock test, better facilities are provided, more experienced and careful testers are in charge, and final returns are more satisfactory. The scale requirements are herewith given:

1. The scale shall be provided with a graduated face of at least ten divisions over which the pointer shall play.
2. The pointer must reach to the graduated divisions and shall terminate in a fine point to enable the readings to be made clearly and distinctly.
3. The clear intervals between the divisions on the graduated face shall not be less than .05 inch.
4. All scales whose weight indications are changed by an amount greater than one-half the tolerance allowed, when set in any position on a surface making an angle of 3 degrees or approximately 5 per cent with the horizontal, shall be

equipped with leveling screws and a device which will indicate when the scale is level; provided, however, that the scale shall be rebalanced at zero each time its position is altered during the test.

5. The scale shall be so constructed and adjusted that when the pans are released or disturbed they will return to rest at the zero mark.

6. The sensibility reciprocal of cream test and butter-fat test scales shall be one-half grain (30 mgs.).

7. The tolerance either in excess or deficiency when the scale is fully loaded shall be one grain (60 mgs.).

A number of prosecutions have been filed during the month involving the handling and sale of eggs that do not come up to the standard required by law. The work of demonstration by inspectors at groceries and produce houses over the state is still going on. A two months' campaign will soon be completed. An egg catechism has been prepared and is now in the hands of the printer. It is to be given a wide circulation, and ignorance will no longer be accepted as an excuse on the part of egg producers and merchants. The passage of a candling law will be urged upon the next session of the legislature, the one thing still needed to give egg consumers absolute protection.

The state food authorities are awaiting with some interest developments in the seizure a few days ago by the federal government authorities of the Capital City Dairy Company's plant here. This is the largest manufactory of butter substitutes in the country, and has heretofore borne a good reputation. Internal revenue officers are now in charge, but give out no information other than that the revenue laws have been violated. If the offenses of the plant are found to have included the coloring of butter substitutes or improper labeling the state will take the matter in hand and inaugurate prosecutions.

A number of cases filed against violators of the pure food laws have been held up for the past month or two, on account of court adjournment, but early fall is expected to bring decisions at a rapid rate. This period will also mark renewed activity along all lines by the department. Another year of the same vigorous treatment of the narcotic evil as that of the past will go far toward cleaning up the state on this long-standing abuse. Jail sentences and heavy fines have thrown a scare into the ranks of traffickers, including those who were formerly shielded by a physician's license. The period of grace allowed hotel and restaurant keepers in selling adulterated coffee with displaying placards, has expired, and inspectors will soon begin a campaign to insure strict compliance with new rulings.

The Ohio delegation to the national convention at Portland, Me., returned home on the 30th ult., after a round-about pleasure jaunt on the way back to Columbus. The party consisted of Commissioner Strode, Chief of Food Bureau Bartlow, Secretary Gayman and Chief of Drug Division Pontius. Two of the number were accompanied by their wives. From Boston boat was taken to Norfolk, Va., Richmond and other interesting southern points being visited. The party was enthusiastic over the convention and the entire trip.

MUST DENATURE SHIPMENTS OF SPOILED FOOD PRODUCTS.

The United States Department of Agriculture has issued a ruling which hereafter will require any spoiled food to be denatured before it can be shipped into interstate commerce.

This will permit the shipment of spoiled eggs for use in tanning, and other spoiled substances for the making of fertilizer, or oils or greases used in machinery, but will require them to be treated with salt, kerosene oil, or coloring matter or in other ways so that they cannot possibly be used for food. The denaturing substances to be required will not interfere with the use of filthy, decomposed or putrid animal or vegetable substances in the manufacture of nonedible products for use in the technical arts, but will be of a nature that will absolutely prevent the converting of the substances into products that could, by any chance, be eaten. This is on the analogy of the denaturing of grain alcohol for use in the arts.

WARD'S FINE CAKE

WARD'S TIP-TOP BREAD

WARD'S TIP-TOP BREAD



THE MARK OF EXCELLENCE



WARD'S
TIP-TOP
BREAD

Look for the name "WARD" on the side of the Loaf

The Name "Ward" is a Guarantee of Bread Quality, Purity and Cleanliness.

WARD'S FINE CAKE

Pensylvania Correspondence

(From our Staff Correspondent.)

Harrisburg, Pa., July 31.—Eighty-three cold storage warehouses are now operating under the State inspection and regulation act of 1913 in Pennsylvania, an increase of six as compared with October 1, when the first of the quarterly reports required by the state law were made. The last reports made showed the contents of the establishments on July 1, and while the comparison can not be taken as thoroughly indicative of what is in storage the summary shows some interesting deposits. Eggs, for instance, are in storage to the number of 4,000,000 more dozens than on October 1, but there is much less butter and fish, but a big increase in poultry. Apparently the commission men are storing eggs and chickens as usual, but the butter reports are not what was looked for.

The summaries show the following:

Article.	July 1.	October 1.
Butter, lbs.	5,070,923	10,445,700
Eggs, dozens	14,368,816	10,664,821
Eggs, canned, lbs.....	465,889	239,821
Fish, lbs.	1,591,843	3,341,487
Poultry, lbs.	2,054,435	763,772

Beef in storage is shown to be 17,501 in whole carcasses and 469,131 in parts, against 33,325 in carcasses and 376,136 in parts in October. There are corresponding changes in other meats, except hogs, of which 1,052,041 pounds were in storage on July 1, against 576,217 last fall.

One of the most interesting events of July was the decision given by Judge S. J. M. McCarrell, of the Dauphin County Court, in which he holds that nothing can be added to cider vinegar. In other words, it must be apple juice, and if any water is to be added it must be done by the consumer. Arrangements are being made to take the case to the supreme court. Similar cases are pending in other counties. The effect of the decision has been to cause dealers to sell vinegar without any added water, and many report that consumers are complaining of acidity. They are told to water it as they see fit.

Activity of agents of the State Dairy and Food Commission in sampling "soft drinks" and ice cream has caused numerous arrests to be made in practically every city. The reports made to Commissioner James Foust indicate that the day of the coal tar dye and chemical flavor in making summer beverages has not passed, and that saccharine is being used in Philadelphia. A striking number of arrests will be shown this summer.

Fewer arrests for violation of the cold storage act have been made than expected, and every one reported is of a retailer who failed to placard cold storage food as such. The cold storage people have been complying with the law and the small merchant is the one who has been getting into trouble by ignoring it.

Dr. H. A. Surface, the state zoologist and active head of the state orchard inspection work, says in a statement to your correspondent: "The yield of apples will be larger and better than known in Pennsylvania. The quality is excellent, thanks to the care taken in treating trees, and the yield is immense. Producers are now commencing to realize that they are crowding each other and the commercial orchard is in danger of being overdone. Reports on pears show that they are abundant."

Severe storms which swept the corn-growing counties in July reduced the crop and many farmers have suffered losses through the army worm and web worm. Steps to ascertain the extent of the damage have been taken by Chief L. H. Wible, of the bureau of statistics of the Department of Agriculture, who has addressed a circular to over 1,700 observers, asking for statements as to the yield of wheat, the loss by the Hessian fly and the amount of 1913 wheat unsold; the damage done to corn by storms and the cut for ensilage; the extent of blight in potatoes and the ravages of army worm and other pests. The figures are to be obtained at first hand and will form the first authentic statistics gathered by the new bureau. Similar steps are being taken on the apple crop by Dr. Surface.

Thorough inspection of all canneries in the state has been started by the Department of Labor and Industry, and as yet nothing worth mentioning has been reported even in the face

of the higher standards on sanitation, safety and employment under new state acts. This department is reaching closely into the establishments where food is prepared, and while the campaign has just begun it is to the credit of the state that not much fault has been found as yet.

Sealers of weights and measures throughout Pennsylvania received on August 1 from James Sweeney, state chief of standards, the schedule of tolerances or amount of variations to be allowed on goods which are sold in package form and are liable to shrinkage or evaporation. There are about sixty commodities listed, each with a tolerance, running all the way from beer and butter to macaroni, shrimps, tomatoes and wine.

The tolerances, as they are known in the trade, were made after a committee of state officials and representatives of the grocery trade had worked over them and rulings of the federal government and advice of United States officials had been obtained. The statement is made in the list that the tolerances named in the schedule are based on weight and volume named in each commodity, and that "where any of the commodities are sold in greater or smaller quantities the variances permitted should be in accordance with good commercial practice."

The milk tolerance is the same as in New York, New Jersey and Massachusetts, being 4 drams above and 4 drams below on a quart, with corresponding tolerance on half gallons, pints, half pints and gills. The capacity must be blown in the bottle on all milk or cream bottles.

The butter tolerance is fixed at 1-16 ounce on a pound; dried fruits 1 ounce to a pound, and on preserves of all kinds one-half an ounce to a pound. Most of the commodities named are daily dealt in by housekeepers.

TIN and FIBRE CONTAINERS

FOR

Foods, Drugs, Oils

Infinite Variety

Large Capacities

Prompt Deliveries

American Can Company

Chicago

New York

San Francisco

WITH OFFICES IN ALL LARGE CITIES

"APPROVED"

—So Everyone Says

A. J. DOUGLAS, M. D. Chairman
L. B. ALLYN, Chemist
L. H. BEALS

WM. M. PORTER, Agent

Westfield Board of Health

WESTFIELD, MASS., 6-30-14

Sherer-Gillett Co.,
1705 S. Clark St.,
Chicago, Ill.

Gentlemen—

This Board believes emphatically in the two following propositions:

First of all, food must be made pure.
Secondly, it must be kept pure.

It seems to us that the Sherer display counters are an exceedingly valuable help for this latter proposition.

We have observed the counters of this type which you have installed locally, and other places, and regard them by far the best thing of the kind that we have as yet seen.

Wish you continued merited success, we beg to remain

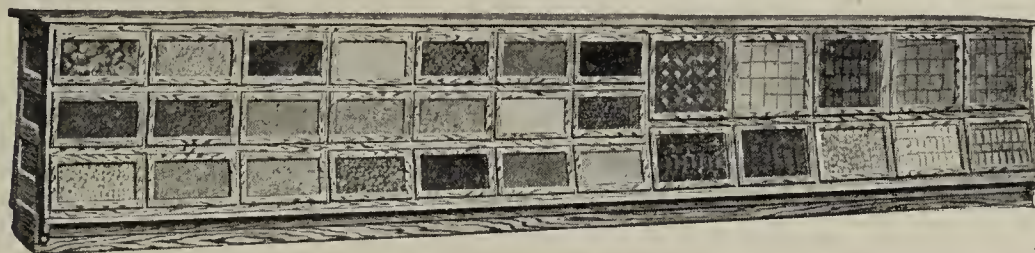
Very truly yours,
L. B. ALLYN.
J

LB-N J

Sherer Counters are commended by food control authorities generally. Many prominent officials praise them without stint.

Merchants appreciate their many economies, their excellent protection of goods and their attractive display of profitable goods.

Women customers note with pleasure the precautions taken to insure clean goods.



They are a delight to the eye, income producers and great savers of goods and time.

Information will be sent upon request to merchants or food control authorities.

Ask for Catalog F

SHERER-GILLETT CO.

1705-7-9 So. Clark Street

CHICAGO



KAFFEE HAG

95% OF THE
CAFFEINE
REMOVED

Robert Kennedy Duncan in his "Some Chemical Problems of Today," predicted the arrival of caffeineless coffee.

Kaffee HAG is the fulfillment of his prophecy.

Kaffee HAG is a blend of choicest coffees from which 95% of the caffeine has been removed without impairing the flavor, aroma or appearance of the coffee.

Sold, in the bean only, in half pound airtight packages for twenty-five cents.

KAFFEE HAG CORPORATION

225 5th Ave., N. Y. City

Utah Correspondence

(From Our Staff Correspondent)

Salt Lake, July 31.—The most important event in inter-mountain food circles during the month just closed was the movement set on foot by J. M. Howell, Secretary of State and ex-officio Sealer of Weights and Measures of the State of Washington, to organize a Western Association of Sealers of Weights and Measures. Before Mr. Howell sent out his circular letter of July 8 asking for opinions as to such a league, Willard Hansen, Utah State Dairy and Food Commissioner and T. L. Irvine, Salt Lake City Sealer of Weights and Measures, had discussed a similar plan. Consequently the suggestion of the Washington man had the immediate indorsement of these two Utah officials.

It is probable that a get-together meeting for the purpose of organizing the association will be held during September in Salt Lake City, as Commissioner Hansen has invited the officials of the various States to meet here for that purpose. Salt Lake is centrally located in the mountain region so that it is ideal for such meetings and it is probable that this city will be permanent headquarters for the organization. It is proposed to have Utah, Idaho, Washington, Nevada, Oregon, Wyoming, Colorado, Montana and California represented in the league. Both state and city sealers of weights and measures in this territory will be admitted to membership under the proposed plan.

The principal good to be derived from such an organization, say the Utah food officials, would be uniform sizes of packages in the western states. It is believed that the west would be thus better able to discuss and act upon real western problems than by each State attempting to send representatives to the annual convention in the east of the National Association of Sealers of Weights and Measures. It is hoped that when the association is organized that it may be possible to have the organization represented at the national convention by an instructed delegation.

The flour milling industry being an important one in Utah and gaining in importance every day, Willard Hansen, State Dairy and Food Commissioner, and Governor William Spry decided July 27 at a conference held at the governor's office, that a state inspector of flour mills is necessary. This position was ordered created, the incumbent to be a deputy of the Dairy and Food Commissioner the same as is the State Hotel Inspector. Mr. Hansen has been given power to make the appointment, subject to the governor's indorsement. He has announced that the inspector will be chosen shortly. Heretofore the flour mills have been inspected by one of the regular general deputies of the department.

About a year ago the state dairy and food department started an agitation to prevent persons from shipping dirty, unwashed ice cream containers and milk cans back to the manufacturers or producers. Several prosecutions were successful in stamping out this insanitary practice. Recently, however, Commissioner Hansen has found that consumers have again become careless and that many containers are being placed on trains without being washed. This practice gives germs an opportunity to collect in the containers and makes it almost impossible to wash them properly. Another campaign has been begun, and unless the practice is stopped prosecutions will follow.

The efforts of the pure food officials during the last two weeks have been given to an investigation of the general condition of Hamburg steak, eggs and soda water in bottles. The Hamburger has been tested for preservatives, the eggs for their condition to determine whether they live up to the "strictly fresh" and "ranch eggs" signs and the soda water as to artificial color not stated on the label or cap and as to illegal coal tar colors. So far, all these products have shown up well under chemical examination by Herman Harms, State Chemist, and no samples have been taken that would give a basis for prosecution.

Heber C. Smith, chief deputy Dairy and Food Commissioner, returned July 26 from Portland, Me., where he represented Utah at the annual convention of the Association of American Dairy, Food and Drug Officials. After the convention Mr. Smith went to Washington, where he spent several days. He reports a most successful food convention and an excellent trip.

At the last meeting of the state dairy and food bureau, Commissioner Hansen was authorized to make a thorough investigation of the amount of shrinkage in the weight of various food products. Utah has had a net weight package law for about a year, but as the federal law does not become effective until September 1, the department is pursuing a policy of waiting until it is seen what regulations and tolerances will be made by the federal board. However, between now and the time for the new government law to go into effect, Mr. Hansen will make a careful check of various products to learn the approximate shrinkage and the variations in packing.

What is considered by the state food officials as an ingenious trick to dupe rural meat dealers was the introduction during the last two weeks of an alleged meat preserving product commercially known as "Preservo." This is manufactured in Ohio and is being sold to butchers as a product that will "preserve meat for an indefinite time." Chemical analysis of the compound shows it to be almost entirely sulphur with a small amount of inert substance to conceal its true character. The food men say that it is only worth about 3 cents a pound, while it is being sold for \$3.50 for a three-pound can. When burned in an ice chest where meat is kept it forms a sulphurous acid gas. This, according to the state chemist, penetrates the meat and while actually preserving it, makes it unfit for food as the meat when tested gives the same chemical reaction as the sulphite test. Letters to all meat dealers were sent out by the food department warning them that prosecutions would follow in case it was found that this substance had been used on the meat.

The recent government bulletin calling attention of housewives to the injurious effects of salicylic acid as used for preservation of fruits and vegetables was given publicity by the newspapers in connection with a statement from state and federal food and drug officials. Special interest in this question of proper preserving of fruits was taken inasmuch as B. J. Sanders, United States collaborator and an employe of the schools, has been fighting such preservatives and teaching the various domestic science and farm improvement clubs of the schools the best methods of preserving without the aid of artificial preservatives.

About the middle of June the city of Salt Lake established its second municipal market, the first having been established in May. The markets are controlled and supervised by city employes and arranged so that producers can drive in from the country and sell directly to housewives. The markets have had the effect of materially reducing the market price of vegetables and other products of the farms and as a result have stirred up opposition, especially among the retail merchants. The Growers' Exchange and the wholesale commission men are also fighting it on the quiet. However, the Salt Lake newspaper and the Association of Civic Clubs, comprising all the club women of the city, are strongly boosting the markets and they are proving a success. In the event that opposition becomes too strong, it is planned to organize a consumers' league and to perfect a system of marketing by which it will be possible to secure deliveries and eliminate overhead expense. This plan is fathered by J. Edward Taylor, Utah State Horticultural Commissioner, who is a strong backer of the market scheme.

Commissioner Winkjer of Minnesota in his recent address before the National Wholesale Grocers' Association made a number of very timely remarks and suggestions. His closing remarks were as follows: "The progressive dealer in foods is commencing to realize that business success comes with high-class service, and as strong support for pure food regulations comes from the dealer who realizes his great responsibility in his service to humanity as comes from the consumer who really knows what his bread and butter means."



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Washington State Correspondence

J. J. Higgins, Assistant Commissioner of Foods, Feeds, etc., department of the Washington state Department of Agriculture, delivered an address before the Federation of Women's Clubs of that state July 22 on the subject of "Needed Legislation," in reference to food and sanitation. Mr. Higgins called attention to various matters which he believed should be acted upon by legislative enactment in order to make more comprehensive and effective the food laws of Washington and bring them in conformity also with the federal laws.

His first recommendation was that the weights and measures clause of the Washington food law should be amended to conform with the federal act. Continuing his enumeration of needs he said:

Second: Our livestock law should be entirely revised. This revision should give the State Agricultural Department more explicit jurisdiction so as to enable the proper officials to safeguard our milk and meat supplies. All efforts to combat tuberculosis will be sadly handicapped until some measure of this kind is enacted. A measure in accord with my suggestion is in course of preparation and contains the following section:

"The Department of Agriculture is authorized to test all bovines in the State for tuberculosis, provided, however, in the case of tuberculosis the owner shall be granted the option of retaining the bovine animals reacting to the tuberculin test and not showing evidences of physical breakdown or lesions of the udder or of generalized character, in quarantine, under such restrictions as the Commissioner of Agriculture, or his authorized assistant, may prescribe, or of shipping them under the auspices and direction of the Commissioner of Agriculture, or his authorized agent, to some abattoir, designated by him for immediate slaughter under the United States Government inspection.

"In case of the slaughter of bovine animals under the provisions of this section, the owner shall receive the entire proceeds of the sale thereof, and shall have no further claims against the State on account of such slaughter.

"Bovine animals showing evidences of generalized tuberculosis, tubercular lesions of the udder, or showing evidences of physical breakdown, shall be destroyed as provided in Section 39 of this act, which section defines the manner of slaughter and disposition by cremation or burying in the ground.

"In the event of the owner refusing or neglecting to adopt either of the options referred in this section, his entire herd shall be closely quarantined and sale therefrom prohibited."

Third: We need a state law giving the State Department of Agriculture supervision over such slaughter houses as do not come under federal jurisdiction. If I could have my way no meat could be offered for sale that had not passed an ante-mortem and post-mortem examination and been certified as wholesome.

This measure should contain strict sanitary regulations and prohibit the feeding of offal to hogs. It also should contain a provision compelling all farm-slaughtered meats that are marketed to contain all the viscera necessary to enable a proper post-mortem examination by some competent Veterinarian or Inspector.

Fourth: A law regulating cold storage practices should be enacted.

Cold storage is an economic necessity. It is not the use but the abuses we should endeavor to correct. There is a limitation to the life and wholesomeness of any food product, no matter what means are employed in its preservation. Speculation has been and is being permitted to overwork the economic value of cold storage.

Fifth: A law is needed compelling all do-over salmon or other reprocessed canned products to be labeled as such. Such an act would safeguard the discriminating buyer and prove a saving to such as cared to take chances with an inferior product.

Sixth: We need a National act that will compel all manufacturers of canned goods to emboss in the ends of the cans the year in which they are packed.

The tendency of manufacturers to overstock wholesalers and retailers and the carelessness of retailers in buying and care of stock, make such a provision as labeling canned goods with the year in which they are packed an absolute and practical necessity.

I believe that embossing in the ends of the can the year in which the goods are packed would be a great protection to the consumer against the sale of stale and unfit food. It would also be an unquestionable guide to inspectors in detecting and eliminating questionable food products; and in a few years would enable our chemists to satisfactorily determine the life and wholesomeness of properly sterilized as well as unsterilized canned products. If any food product is improved by age the packer will be benefited by such information. On the contrary, if beyond a certain age they become harmful, the consumer is entitled to the protection such knowledge would convey. Under present conditions we are groping in the dark and of necessity are permitting the consumption of much unwholesome food or condemning it without any definite knowledge as to its true condition. This proposal to date the can we know is not favorably considered by manufacturers or the trade, but as before stated their practices are responsible for its necessity. I believe such a law would prove a blessing in disguise. The restored confidence such a measure would promote among consumers would increase the consumption and benefit all concerned.

Seventh: One of our most imperative needs is a State and National Sanitary Law.

Cleanliness is the foundation principle for the safeguarding of life and health. The battle for pure food has made gigantic progress in the past twenty-five years, but its teammate, cleanliness, has been sadly neglected in some instances and almost totally lost sight of in others. A great many of our foods that are chemically pure are sanitariously unfit to eat. In brief the best and purest products may become and often do become so contaminated by filthy surroundings and handling that they are more dangerous than the vilest adulterations that prospered in the ("balmy") days prior to food legislation. * * *

A good sanitary law with stringent penalties would automatically regulate many of these difficulties and the others could be regulated by the police powers given to the food inspectors. * * *

I hope and trust your state federation will endorse and actively support an efficient sanitary law. In considering matters of this nature we must be careful not to permit our zeal and enthusiasm for better food conditions to so bias our judgment as to tempt us into inflicting undue and unnecessary hardships upon legitimate and honest business interests. The prosperity of our producing and manufacturing interests is of vital concern to every one of us.

SAPONIN IN TONICS.

Health authorities of various states are sharply criticising the use of a solution of soap tree bark or root in tonics. If you have drunk some tonic which tasted a little more like soap suds than anything else in the way of flavor, and which seemed to have any amount of froth and foam, you are probably familiar with the tonic in which this material is used. Saponin, a commercial product made from the soap tree bark or root, and which is a white powder, is used to a considerable extent in the making of these cheaper tonics.

This saponin is considered to be a powerful poison, and it is claimed that carelessness in mixing might easily result in enough of it being used to make the drink dangerous to health, although this very seldom happens.

In addition to the soap bark tree, which is found in New Mexico, in Mexico and elsewhere, there is what is called the soap plant. In Mexico the natives use pieces of the root of this plant in place of soap.

The pieces produce a fine lather and answer all right for soap, it is claimed. The same material is said to be used in preparations for shampooing the hair.

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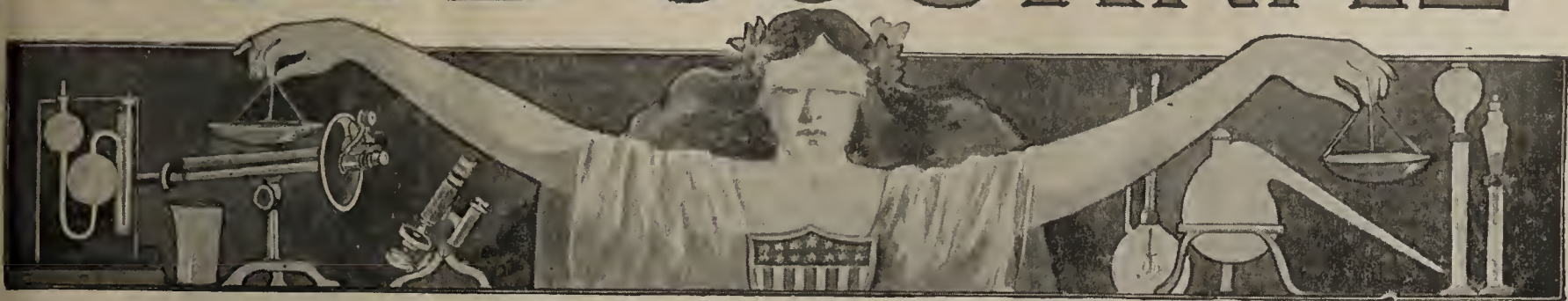
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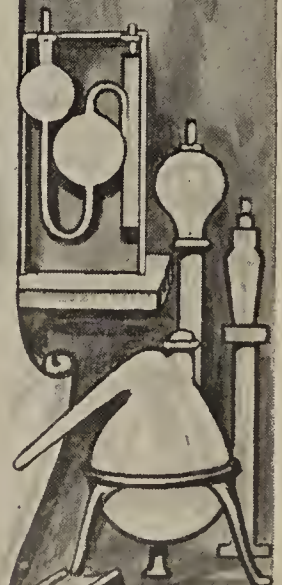
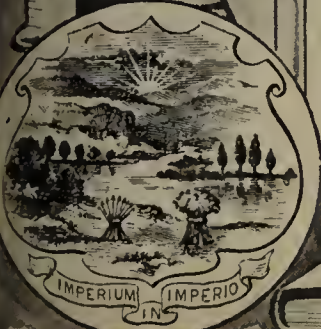
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Vol. IX.

SEPTEMBER, 1914.

Number 9.

Advancing Food Prices—Why?

A NEW impetus was given to investigating activity, so pronounced during the past few years, when the European war broke out and the next most prominent subject featured by many of our newspapers after the war is that of advancing food prices. All over the country federal, state and local officials and organizations of various kinds composed of private interests have been busy with investigations in an effort to ascertain the primary cause for the increased prices charged for foods, particularly such staples as meats, sugar, flour, etc.

Results of these investigations soon began to appear and while they have been highly illuminating and educative to many people, nothing sensational so far has been unearthed. Charges of conspiracy and combination come easy to the lips of many excitable people, and we must admit that European events of such portentous character as are described in relation to this horrible war, are calculated to transmit their influence to all civilized countries. One whose pulse does not beat faster and imagination is not quickened through knowledge of the startling events now transpiring, must be phlegmatic indeed.

There is much evidence of a steady down apparent already, however, and at the present writing food prices in general have not advanced to an alarming degree. At the same time it will prove a healthful, restraining influence upon the inherent speculative tendency of most commercial factors to know that the public is on the alert to prevent manufacturers and distributors of food products from taking advantage of the situation produced by war to enter into any unlawful agreements to restrict normal distribution in order ultimately to obtain extortionate prices for foods.

The almost total stagnation of exports of any commodity, food or otherwise, and the absence of any normal cause for increased domestic demand makes it safe to say that for the most part such prices as have been advanced on foods, have been in anticipation of future demands of the markets of the world.

While it is certainly true that there has been a pronounced effort on the part of frugal housewives to "anticipate their wants" in commercial parlance, and lay in supplies far in excess of their usual stock, this alone would not be adequate excuse for raising prices.

In spite of all efforts to ascertain the why of advancing food prices and most laudable determination to prevent unlawful speculation which would unduly inflate them, all signs point to a period of "high cost of living" considerably in excess of what has of recent years prevailed.

We are all of us, to a greater or less extent, "gamblers in futures." The housewife who buys supplies at a low figure in the face of a tendency to advance, and the farmer who holds his produce in hope of higher prices, is in theory gambling just as truly as the purchaser of options on the Board of Trade.

The duration of the present war is variously predicted at from three months to three years. To calculate even on the basis of a minimum of three months it requires no gift of prophecy to foretell what will be the inevitable result of the enormous destruction by the huge armies, of crops and all kinds of property, and the simultaneous withdrawal from fields and factories of hundreds of thousands, yes millions of producers.

Other commodities than food will without doubt share in the advance of prices that can confidently be expected to occur all along the line.

True, the United States is in a prosperous condition and we are harvesting enormous crops. Our large production is however more than offset by the greatly increased demands that are bound to be made upon us for supplies, from warring as well as neutral countries.

The existing status of the world's finances contributes its generous share to the influences which make for higher prices on all commodities of world commerce. Increased rates of exchange and larger interest must ultimately fall upon consumers as they are legiti-

mate charges against cost of production. We believe that the net result of the present European conflict to the United States will be great expansion and profit commercially. For a time and especially during the period of adjustment to changed conditions, which came upon the world so suddenly and without warning, we will pay some of the cost of the war from a material standpoint. So closely interwoven are the world's industrial and financial interests and activities today that this is inevitable.

These facts as to what are reasonable expectations in regard to food prices, need not cause any panicky feeling among the people of this country. Some there are who wax indignant that we should suffer loss and inconvenience from a war in which we have no direct interest. They should remember that no nation today lives unto itself alone, and we cannot, if we would, disentangle ourselves from the community of life and interests which now knits together mankind more closely than has ever before been known.

If we face conditions with cool heads and work out our problems with steady hands and strong hearts matters will more speedily adjust themselves. This is a time for each individual to do his part and assume his share of responsibility. Cries of combination and conspiracy may mean that some of us are trying to place responsibility upon other shoulders than our own or where it really belongs. If everyone will "sit tight, and don't rock the boat," this country should have no serious difficulties, and we must view with equanimity even advancing food prices, for the causes are very largely beyond our control, and based upon the inexorable law of supply and demand.

TO MANUFACTURERS OF TOMATO PULP.

THE tomato packing season is now opening and to insure a clean product the attention of packers is called to the statement and suggestions relative to the examination of tomato ketchup as given in Circular 68 of the Bureau of Chemistry.

While it is believed to be possible for manufacturers of tomato products to keep within the limits given—25 million bacteria per cubic centimeter, 25 yeasts and spores per one-sixtieth cubic millimeter and moulds in less than 25 per cent of the fields—and that these are the desirable maximum limits, they are in no case to be regarded as the final standard by which products of this nature are to be judged. Such products should be judged by no single factor but by all the factors involved, including the degree of concentration.

While the microscopic examination is of great value in determining the quality of the finished product, it is believed that the expense of microscopic examination can better be expended on factory inspection. It is recommended that manufacturers place greater stress upon the inspection of their raw material, and on the regulation of factory methods in order to assure themselves that no unfit material is used, that the products are handled in a cleanly and sanitary manner, and that proper sterilization results. The packer who knows that he is using only sound material and sanitary methods usually has a much better knowledge of his products than that secured by a superficial examination of the finished material.

When microscopic examinations are made they should be made by those specially trained in bacteriology, microscopy, and examination of plant structures,

in order to secure trustworthy results. The chemist, even though he be an experienced analyst, usually has only a superficial knowledge of bacteriology and microscopy. Many manufacturers are employing inexperienced persons to make examinations by the methods given in Circular 68, and are depending upon the results obtained to determine whether or not their products comply with the requirements of the Food and Drugs Act. It has been brought to the attention of the bureau that manufacturers and buyers frequently reject and destroy wholesome food products with the consequent loss as the result of such untrustworthy examinations.

It is the intention of the Bureau of Chemistry to enforce more rigidly the requirements of the law relative to the use of unfit material in food products and the suggestions made above are offered with the object of directing attention to the points where they will do the most good. It is much preferred to improve the character of food products by assisting the manufacturer than by summoning him into court.

NEW DEPARTMENT LABORATORY.

THE laboratory of food and drug mycology of the U. S. Department of Agriculture has been established to study the relation of molds and bacteria to decomposition and deterioration in foods. The laboratories already established in other bureaus are concerned chiefly with the problems of the producer of plants and animals. In some instances the products of particular industries have been followed through transportation to the markets. The citrus fruits have been so studied, also potatoes and apples. These are counted as living, and hence subject to parasitism.

These laboratories have not dealt with manufactured products. Cornmeal, for example, has not been studied by them, yet furnishes some very important problems. Processed foods appear in the market in wide variety but have not belonged to the field assigned to existing laboratories. The new laboratory is designed to cover this field as fully as the time of its workers and the facilities at hand will permit. In just what order problems will be considered is not settled, but some work is already in progress and other work will be begun as need arises. The laboratory will be equipped for research in the activities of both fungi and bacteria. The workers will thus represent both fields of training.

In the processes to be studied both forms of activity are usually present. Either type of worker without the other would obtain only partial information, but by close association of mycologist and bacteriologist with the ample chemical establishment already present, results worth while should be obtained.

COMMISSIONED OFFICIAL FOR OKLAHOMA.

Dr. J. C. Mahr, Commissioner of Public Health of Oklahoma City, has been commissioned by the Department of Agriculture a collaborating official of the Government.

COFFEE WEEK.

The National Coffee Roasters' Association has named October 19-24 as Coffee Week, and expects coffee consumption to be greatly stimulated through its observance.

NO DATING LAW IN GEORGIA.

A STRONG effort was made in Georgia during the session of the state legislature in July to secure the passage of a bill requiring the date of packing to be placed on all kinds of package foods or food products. The manufacturers of Georgia, seconded by those of other states waged a campaign against the measure and succeeded in securing a unanimous vote against it in the committee on general agriculture to which the bill had been referred.

Measures of this character are largely aimed at canned foods and the canning interests have been more influential perhaps than any other single interest in preventing the passage of dating laws. They have compiled and disseminated a large amount of evidence tending toward conclusive proof that canned foods do not deteriorate with age. On the other hand the advocates of dating laws have not so far as we are aware, presented any arguments, supported by other evidence than their own declarations, to prove that aged canned foods are in any way less desirable than the goods recently canned.

It would seem that there should soon be an end to this agitation for dating package foods in the face of these facts. Attempts have been made in numerous states to put dating laws on the books, and all have ended in failure.

FISH AS A SUPPLEMENT TO MEAT.

THAT the meat supply of the world is entirely inadequate to demands is a statement which admits of no argument. For several years past there has been a steady advance in meat prices in this and other countries, and all of the agitation of the question and volumes which have been written on it have failed in making any impression on the facts. The feeling against packers voiced by consumers has been acute and ready to flare up in new denunciations and charges with slight provocation.

When one considers the enormous production of meat in the United States, it would seem that there should be sufficient for all at reasonable prices; but when we place over against production the still more enormous demand, increased cost is a most natural sequence.

It is undeniably true that the American people as a whole eat more meat than they need, and in spite of the cost refuse to cultivate a taste for other foods the elements of which are the same or produce the same results in flesh and energy as do meats.

It is useless to investigate and legislate against rising food costs, when supply and demand are so at variance as is the case with meats. The thing to do is adopt the philosophy of "One Simple John Tompkins," as illustrated in his cheerful remark:

For why should I grumble and murmur, he said;

If I cannot get meat, I can surely get bread.

There is no dearth of food in this country. The difficulty is everyone seems to want to eat the same kinds of food. We as a people have not taken kindly to cheese, although we consume more now than formerly. And the same is true as to fish. Yet both of these classes of food can be utilized to almost completely take the place of meat in a well-balanced diet.

The first publication of the United States Department of Agriculture in connection with its investigations of fish and fish products has just been made. It is entitled "Supplementing Our Food Supply With

Fish," and is from the pen of M. E. Pennington, chief of the food research laboratory, in Philadelphia, of the Bureau of Chemistry. Dr. Pennington begins by reminding us that "Meat shortage was an old problem to other nations when our nation was in its infancy," a simple statement that may be "news" to some of those who are so vigorously discussing the "unprecedented" condition existing at the present time.

Calling attention to the popular but erroneous belief entertained by so many of our people that fish does not furnish us with as high grade material as beef, Dr. Pennington presents the following table, which indicates an encouraging similarity in protein content:

Kind of meat.	Per cent of protein.
Beef, loin, medium.....	17.9
Beef, ribs	17.0
Beef, round, medium.....	19.7
Leg of mutton.....	17.9
Neck of mutton.....	16.4
Loin pork chops.....	16.1
Ham	14.8
Kind of fish.	Per cent of protein.
Bass, black	20.0
Bluefish	18.8
Cod steaks	18.1
Flounder, whole	13.8
Haddock	16.7
Halibut steak	18.0
Lake trout	17.3
Mackerel	18.1
Weakfish	17.3
Whitefish, whole	22.2

European countries have given practical encouragement to their fish industries, and to the education of their people to the value of fish as a food. This has greatly stimulated consumption and increased output. As a matter of fact, on the whole it is the foreign-born population of the United States who constitute the large proportion of fish eaters in this country.

One of the reasons why the American people are not more appreciative of fish is the lack of ability on the part of the American housewife to properly cook the food. Dr. Pennington, touching upon this subject, says:

"The person who has enjoyed the appetizing and satisfying fish served so universally in Europe, or even in New Orleans, finds a woeful lack of ability on the part of the American cook to utilize to the best advantage even the high-class fish, and a hopeless incompetence when the less desirable varieties are used. The many attractive sauces that add flavor and piquancy are unknown. The many accessory dishes, such as salads, croquettes, pates, etc., that may be made from fish are never considered. A very great gain would accrue to this nation if some agency would follow the example of Germany and institute classes in the art of cooking fish."

After considering the subject from all its favorable aspects, and calling attention to the necessity for eating more fish, there is one very important phase of the matter which vitally affects the prospects of the fish industry in this country. It is found in this single sentence from the report:

"For uncertainty of harvest, however, fishing exceeds even the most unreliable crops with which agriculture has to deal." When all is said and done, food

production is very largely a commercial proposition. No one cares to lend their efforts to engage in any industry that does not "pay." And to be candid we can't blame them. If it were only a matter of educating the body of consumers to the value and palatableness of fish as food, the task would not be so difficult. But when coupled with the fact that too often the industry is disastrously unprofitable to those engaged in it and for natural causes over which man has no control, the situation becomes more complicated.

Yet, as Dr. Pennington says in conclusion:

"Fish is now the poor man's food in the United States. To it, more than to any other nitrogen-rich product, must we look for a food supply to supplement the meat which we can not hope to have in the future as in the past, either in price or in quantity. All food taken from the sea is a net gain to the land. This food in no way impoverishes the soil, and in fact adds to the fertilizing elements of the country. On the other hand, food raised on the land necessarily takes elements from the soil, and this tends to impoverish the fertility of our farms unless the elements withdrawn are artificially restored. This is true of every animal raised for meat purposes, although, of course, the depletion of the soil on which meat animals are fed is not so direct as when corn or some other product is raised and shipped away to be consumed in some distant section. There is, moreover, a limit as to the amount that can be produced on the land. The fish in the seas, on the other hand, feed and breed unaided and practically in unlimited numbers. Like many another of our resources, we have not yet begun to fathom the value of the fish in our waters. Only time and necessity will teach what they mean to our nation."

ALBUMEN IN NORTH DAKOTA.

THE albumen situation seems to have become acute in North Dakota and to threaten the official life of one of the most conspicuous food commissioners of the United States. In a recent number of the Fargo Daily Forum, under the caption, "Powerful Enemies of Dr. Ladd Are Trying to 'Get His Scalp,'" appears an article in which the alleged activities of the enemies of Dr. Ladd are set forth. In part the article reads:

"But the most bitter of all Dr. Ladd's enemies is the great baking powder concern. This company made great claims based on the egg albumen in their baking powder. Dr. Ladd ruled that the amount of egg albumen in the baking powder was negligible, and what little there was in the powder was placed there for the purpose of deception and fraud. As the North Dakota law prohibits the sale of anything fixed up for deception and fraud, this was a body blow to the concern, their goods were barred in North Dakota, and they joined the number who were going to 'get' the doctor's scalp.

"It is stated that this company is about to send twenty-five men into North Dakota ostensibly for the purpose of putting up a fight to get their goods back into the state under a new label. It is rumored, however, that the real purpose of the coming of this big company of men to the state is to undermine Dr. Ladd. The company has heretofore never had more than four or five salesmen in this state, and the coming of such a large company has aroused suspicion."

Commenting editorially on this situation, the Forum says:

"For some time there have been rumors that Dr. E. F. Ladd was to be 'forced out' at the agricultural college. There is undoubtedly some ground for these rumors. The Forum believes, however, that the people will not allow such a calamity—for it would be nothing short of a calamity for North Dakota to lose the services of this man.

"Dr. Ladd has made some powerful enemies. The Forum, in another part of the paper tonight, tells why.

"It is said that there are political moves now under way to bring about the retirement of Dr. Ladd. Those who are active in this direction are brave men indeed. This proposition is loaded to the muzzle and there is liable to be an explosion that will shake the state of North Dakota from center to circumference."

DO CANNED GOODS NEED DATING?

THOSE mistaken pure food radicals who so persistently advocate laws to compel packers to place on canned goods the date when packed should paste in their hats the following illuminating record concerning canned squash as published not long ago in the La Crosse (Wis.) Tribune. No comments are necessary as the record is complete:

"Two cans of squash, canned by the La Crescent Canning Company twenty-nine years ago, were opened yesterday afternoon in the offices of Linse-Bentley Company, brokers, 120 Main street. The record of this canned goods is as follows:

"Canned in the factory of Peter Ferguson and W. E. Potter in La Crescent in 1885.

"Frozen in winter and thawed in spring for twenty-eight years.

"Found in loft by John Cameron two years ago and presented to Linse-Bentley Company.

"Kept on even temperature for a year before opening.

"Opened Wednesday, March 25, 1914, and found sweet and wholesome.

"Sixty men, including all leading hotel keepers and canned goods dealers, were present, and all pronounced the squash in perfect condition. Three cans remain. Of these two will be sent to the National Cannery laboratory in Washington for analysis; the other one will be put away for twenty-one years, to see if it will stand the test of fifty years."

CHEMISTS OFFER SERVICES.

The Chicago section of the American Chemical Society has offered its help to American manufacturers and business interests in overcoming difficulties occasioned by the cessation of imports of chemicals on account of the European war. The executive committee of the Chicago section called a special meeting to consider the matter and it was decided to institute a bureau composed of chemists of recognized standing, which invites inquiry from any who desire advice as to the best method of procedure to overcome the handicap resulting from the scarcity of foreign produced chemicals and products, and to answer inquiries and to supply, when possible, information such as cannot be obtained through the usual channels, or to direct inquiries to reliable sources of information.

All communications should be addressed to American Chemical Society, McCormick building, Chicago.

An Examination of Catsups

By DR. CHARLES E. GABEL, PH. D. B. S.

ACCORDING to circular 19 of the Office of the Secy. of Agriculture, "Catsup (Ketchup or Catchup) is clean, sound product made from the properly prepared pulp of clean, sound, fresh, ripe tomatoes, with spices and with or without sugar and vinegar." The definition of the product by the manufacturers on the bottle may be something like this: "This catsup is composed of tomatoes, spices, onions, garlic, vinegar, sugar and salt. Preserved with 1/10 of one per cent Sodium Benzoate"; or to indicate a better product which the examination does not always justify, the label may read: "Made from Whole Fresh Ripe Tomatoes, pure spices, distilled vinegar, granulated sugar, salt and onions. Not artificially colored. This catsup contains 1/10 of one per cent benzoate of soda to prevent fermentation after the bottle is opened." Another contained this legend: "Made from Fresh, Ripe Tomatoes, Uncolored. We guarantee this catsup to be made from fresh, ripe tomatoes. It contains no added color or artificial preservative and is made by a new process, absolutely our own, coming in contact while cooking, with no other metal than silver, thus retaining to the fullest extent the natural flavor and color of the tomato." It also contains the valuable advice to "Keep in a cool place after opening." Another claims to be made "by thoroughly domestic methods from red, ripe tomatoes, pure spices, salt, sugar and vinegar." The label on another bottle assures us that the product is "Strictly Pure" and contains "absolutely no preservative or artificial color." Another informs us that it is "high grade." While one label acknowledges the presence of one-tenth of one per cent of benzoate of soda, another notice on the bottle says that it is guaranteed free from artificial coloring or any injurious substances.

While the net weight of some brands of catsup is not stated, others claim to be of "full value" or state for example, that the net weight is 9½ or 10½ ounces or say that it contains not less than 12 ounces or simply say, e. g., 16 ounces—net weight. The net weight determined in many samples was found to be equal to or above that stated on the label. While there is some variation in the price per ounce, the cost of the product is regulated not only by the quantity but also by the quality. The latter is often judged by people from external appearances. Realizing this, some manufacturers use bottles which are distinctive on account of their small size, shape, construction or cap. An attractive name is used for the brand and the label besides illustrations may be printed with gilt or various colors. Blue and red seem to be favorite colors to suggest a superior quality. The fact that people often judge the quality of a food product by its color has undoubtedly induced manufacturers in the past to add coal tar colors to their products. The producers admit that "the use of a dye is unnecessary when the catsup is made from fresh tomatoes. It is when the fruit is out of season and the pulp has to be kept in stock for a considerable time that the color suffers and the use of the dye becomes necessary." The Canadian Government in its Bulletin 129, Dec. 15, 1906, gives the results of its examination of Tomato Catsup. From 13 inspection districts of Canada, there were collected 49 samples. Twenty-three of these were found to be dyed. In its Bul. 224 of 1911 it reports the examinations of 75 samples collected in 15 inspectorial districts during June and July of the previous year. The total solids varied from less than 5% to above 30%, the mineral solids (chiefly salt) from 0.68% to 3.82%. All of the samples were found to be in good condition and free from molds or decay, 3 contained salicylic acid as a preservative, 46 benzoic acid and 6 sulphurous acid or sulphites. Coal tar dyes were found in 54 cases.

While many samples in the U. S. were also formerly artificially colored, the enactment and enforcement of Pure Food Laws have caused a diminution in the number of samples found containing artificial color.

Probably more injurious than the colors or the 1/10 of 1% sodium benzoate used in the catsups are the products of the micro-organisms, which only recently are receiving the attention they should have. Some molds, bacteria and yeasts produce products which are deleterious to the human system. This may occur even before their presence is detected by odor or taste. When thus perceptible, the micro-organisms are present in excessive numbers and often show their presence as a whitish sediment on the bottom of the bottle.

Some claim they can detect whether the skins and the cores of the tomato canning establishment were used in the preparation of the catsup by the arrangement of the particles in the bottle adhering to the glass when the catsup is moved about.

Extracting the cork from the bottle may indicate the condition of the contents. The presence of a partial vacuum above the catsup causes difficulty in extracting the cork and spattering of the catsup unless a cork puller is used which gradually withdraws the stopper. When, due to fermentation, gas has accumulated within the bottle, it assists in the extraction of the cork and may have an unpleasant odor. Smelling and tasting the catsup may greatly help in determining its quality. Yet although most consumers must depend largely upon such tests, few probably make even this examination. However, it would show them considerable variations among the different brands of catsup. Similar variations in consistency are evident to the tactile sense of the mouth.

The relation of the fluid to the solid part in catsup varies greatly in different brands. This may be accounted for by the extent to which the tomato juice has been boiled down, or by the amount of vinegar, sugar and spices added to preserve it. The tomatoes having been sorted and washed, are scalded and broken up in a cyclone. The latter sometimes allows too large pieces to pass as when the thick pulp is strained to remove the seeds and other tissues or the mass of spices, the sieves of some manufacturers are probably not as fine meshed as those of others, or are defective. In order to be sure that decomposition would not occur it seems that some manufacturers have added an excess of vinegar and sugar, so that the product keeps even when exposed to the air. Too many sand particles are sometimes also present. The specific gravity of the catsup is determined by dividing the weight of a certain volume of catsup by the weight of an equal volume of water.

Besides physical and microscopical, also chemical examinations are made of catsup. According to the U. S. Bureau of Chemistry, Bulletin 119, the determination of the citric and lactic acid content are important as a good catsup has more citric acid and less lactic acid than one which is spoiled. During decomposition the sugars are changed into alcohol, carbon dioxide, acetic and lactic acid. Different micro-organisms produce different kinds of these by-products. Decomposed catsup is characterized by a high percentage of lactic acid and little or no citric acid. Besides finding the total acidity and volatile acids, determinations are sometimes also made of the reducing sugars, soluble and insoluble solids, ash, alkalinity of ash; sodium chloride, artificial colors and preservatives.

Microscopic examination of catsup may be made by the Howard Method (see U. S. Chemistry Circular 68), which is the one usually employed for such work, or by modifications of it. As the high micro-organic content of the catsup thus found, exceeded the number obtained by the manufacturers, a comparison was made with the method of testing employed by them, using the same samples. While some of them have a quick and easy method it was also found to be very inaccurate, giving results which are too low. By using a higher factor in multiplying the number of micro-organisms found, the results would show less discrepancy with the federal method, but even then, on account of the small areas of catsup examined under the microscope, would be inaccurate. The method referred to is about as follows: Shake a small amount of catsup on the hand. Lightly touch to it a glass slide and put a thin cover glass over the catsup adhering to the slide. Examine with the 1/12" oil immersion lens. Count the number of mold filaments seen in various microscopic fields and calculate percentage of fields having mold. In each of the fields examined, count also the number of yeasts and spores. Multiply the average by six, the product, they claim gives the number per 1/60 cmm. in the catsup. Also count the bacilli in each field. Multiply the average by 2,500,000, the product is assumed to be the number in one cc. of the catsup.

While this commercial method is rapid, other methods used in some state food laboratories are too slow and unnecessarily complicated, using minutiae of bacteriological technique which although proper under other circumstances

are entirely uncalled for in the examination of catsup, where a variation of hundreds or thousands of bacteria per cc. is of no consequence and unnecessarily lengthens the time used for and increases the expense of the examination. I refer here to such practices as flaming the top of the catsup bottle, using sterilized cork puller, slides, and cover glasses, diluting the catsup in sterilized burettes with sterile distilled water, taking samples with sterile pipettes, staining and fixing the bacteria, using Wright's Method, counting the bacteria in the catsup by mixing with blood and determining the ratio of the number of red corpuscles to the number of bacteria, etc. Many fail to realize that we are dealing largely with dead germs in catsup, the vegetative forms having been killed by the processing to which the product was subjected so that there are comparatively few living (spore) forms left, as can be shown by plating the catsup according to the usual bacteriological methods. This view is quite different from that which some take, e. g., Mr. Tolman in the American Food Journal of July, 1913, p. 291, says: "We examine to determine if there are any live bacteria. Of course, if the organisms are dead in the catsup, they were undoubtedly dead when the catsup was made." It seems more probable that most of the micro-organisms were alive and contaminated the catsup with their by-products before they were processed. Although it seems that some microscopists cannot get along without staining and the use of artificial light and various other accessories, we get satisfactory results with the unstained preparation, using daylight as an illuminant except when it is cloudy.

The method we prefer to use is about as follows: The bottle of catsup is shaken about twenty five times. A little over 5 cc. is then drawn up into a clean pipette, some of this is blown out and spread upon a glass slide and covered with a cover glass, so that it is about one-tenth mm. in thickness. The pipette is then freed from the catsup adhering to its outside by allowing water to run over it. The catsup is then permitted to flow from the pipette until it reaches the mark indicating exactly five cc. This is then emptied into a clean graduate containing 20 cc. of water. The water is drawn up into the pipette to the mark three times so as to rinse the inside. The water used was ordinarily tap water which had been heated and as shown by tests contained very few bacteria per cc. The glass stoppered graduate in which the catsup was diluted five times is then shaken twenty-five times. After waiting a minute in order to allow the coarse particles to settle, a small amount is withdrawn with the pipette used before and after allowing a few drops to escape the end is touched to the ruled square of a Thoma-Zeiss Haemocytometer, and the small amount of diluted catsup covered and later examined.

EXAMINATION OF CATSUP FOR MOLD.

The slide of undiluted catsup is placed on the mechanical stage of the microscope and viewed with ocular 6 X and objective 16 mm. After the presence or absence of mold filament in the field has been recorded by a + or - sign the slide is moved until a new field comes into view. Thus 50 fields are counted and the percentage having any mold determined.

As the molds in catsup often look so much like the other structures in it that they are not readily distinguished, search was made for a method of rendering them more quickly and easily distinguishable. While the addition of stains colors the molds, it also affects the other parts of the catsup. Although a differentiation of the tissues may thus be brought about it was thought that better results might be obtained by getting some of these other tissues out of the field of view. This is accomplished by means of clearing agents. Some of the clearing agents ordinarily used in histological work were evidently unsuited to the present case. Such are cedar oil, clove oil, bergamot oil, or compounds containing such oils, as for example, Eycleshymers clearing fluid. Xylol also would not mix well with the water present in catsup. These substances might give satisfactory results if applied after a drop of the catsup has been dried on a slide. Other clearing agents such as chloroform, carbolic acid, turpentine, benzine, or gasoline seem unsuitable.

An equal amount of chloral-hydrate solution was mixed with catsup and although it cleared up the microscopic field very well, it also made the mold more transparent. The same was true when glycerine was used. Various solutions of KOH were tried and also seemed to render the tissues more transparent or to dissolve them. Various stains were combined with this and the former reagents or used alone and helped to increase the contrast. The effect was more pronounced when the preparations were examined the next day. Other reagents experimented with seemed still less suitable. A solu-

tion of potassium bichromate in concentrated H₂SO₄ was tried on an equal volume of catsup in the hope that it would dissolve some of the catsup and color the mold. This it did but as the coloring was slight various stains were combined with concentrated H₂SO₄. The acid seemed to affect the color unless the latter was used in large amounts. However, very good and contrasty slides were obtained when the preparations were examined next day. To get the same results in a shorter time heat was applied, however as that would complicate the examination, it was not considered advisable. The most suitable procedure seemed to be to use concentrated H₂SO₄ without any addition, adding to it and equal bulk of catsup and mixing thoroughly. This may be done in a glass vial using 1 cc. each of acid and catsup, but because the heat generated by shaking the mixture may cause some of the latter to be thrown out, it is advisable to use a taller, glass stoppered cylinder, so that the heated air may have more room in which to expand. A drop of suitable size is then placed with a pipette upon a glass slide covered and examined, being careful that none of the acid mixture touches the microscope. The acid has cleared up the catsup as may be shown by adding an alkali when the former opacity returns. However, the mold filaments show up well and charring as the acid continues its action become brownish and on the following day black when the count can most easily be made. While in untreated catsup on account of the homogeneity of the field the small mold filaments are often only recognizable or their identity established after careful study, in preparations made this way they are easily recognized as they appear black against the light background, and can readily be distinguished from other structures which appear to be quickly disintegrated by the acid, which does not seem to affect the mold in that way so quickly. The tomato cell-walls which formerly in some cases could hardly be distinguished from mold filaments, by the present methods become lighter as the molds become darker so that there is no possibility of mistaking them.

TABLE FOR DETERMINING THE NUMBER OF BACTERIA IN A LIQUID.

Bacteria per 1/4,000 cmm.	Diluted 0 Millions per cc.	3 Millions per cc.		Bacteria per 1/4,000 cmm.	Diluted 0 Millions per cc.	3 Millions per cc.	
		5 Times per cc.	5 Times per cc.			5 Times per cc.	5 Times per cc.
.1.....	.4	1.2	2	2.6.....	10.4	31.2	52
.2.....	.8	2.4	4	2.7.....	10.8	32.4	54
.3.....	1.2	3.6	6	2.8.....	11.2	33.6	56
.4.....	1.6	4.8	8	2.9.....	11.6	34.8	58
.5.....	2.0	6.0	10	3.0.....	12.0	36.0	60
.6.....	2.4	7.2	12	3.1.....	12.4	37.2	62
.7.....	2.8	8.4	14	3.2.....	12.8	38.4	64
.8.....	3.2	9.6	16	3.3.....	13.2	39.6	66
.9.....	3.6	10.8	18	3.4.....	13.6	40.8	68
1.0.....	4.0	12.0	20	3.5.....	14.0	42.0	70
1.1.....	4.4	13.2	22	3.6.....	14.4	43.2	72
1.2.....	4.8	14.4	24	3.7.....	14.8	44.4	74
1.3.....	5.2	15.6	26	3.8.....	15.2	45.6	76
1.4.....	5.6	16.8	28	3.9.....	15.6	46.8	78
1.5.....	6.0	18.0	30	4.0.....	16.0	48.0	80
1.6.....	6.4	19.2	32	4.1.....	16.4	49.2	82
1.7.....	6.8	20.4	34	4.2.....	16.8	50.4	84
1.8.....	7.2	21.6	36	4.3.....	17.2	51.6	86
1.9.....	7.6	22.8	38	4.4.....	17.6	52.8	88
2.0.....	8.0	24.0	40	4.5.....	18.0	54.0	90
2.1.....	8.4	25.2	42	4.6.....	18.4	55.2	92
2.2.....	8.8	26.4	44	4.7.....	18.8	56.4	94
2.3.....	9.2	27.6	46	4.8.....	19.3	57.6	96
2.4.....	9.6	28.8	48	4.9.....	19.6	58.8	98
2.5.....	10.0	30.0	50	5.0.....	20.0	60.0	100

EXAMINATION FOR YEASTS AND SPORES.

These are determined from the Thoma-Zeiss slide prepared as stated above by using the same ocular (6 X) and the 8mm. objective (or with a thin cover glass use ocular 4 X with objective 4 mm.). The yeasts and mold spores are counted in two of the microscopic fields which together equal an area of (1 X 1/2 mm =) 1/2 sq. mm. Being one-tenth mm. deep it represents (1/10 X 1/2 =) 1/20 cmm. But as the catsup was diluted five times this volume contains only one-fifth of the original substance (1/5 X 1/20 =) 1/100 cmm. To express the result in 1/60 cmm. we must therefore multiply the number of yeast cells and mold spores found by 5/3.

When these bodies lie on the line, they are not counted unless the larger part is within the area under consideration. As the yeast cells vary considerably in size and are less opaque than some other cells, some may be easily overlooked. On the other hand certain aggregations of particles may be mistaken for yeast, however they will be found lacking a nucleus.

EXAMINATION FOR BACTERIA.

These are determined from the Thoma-Zeiss slide used in the examination for yeast and spores by using the same objective (8 mm.) but the 12 X compensating ocular. Other combinations such as the 4 mm. objective and the 8 X ocular, giving a different magnification, may be used, which, of course, will not change the result as would be the case in the examination of mold filaments where different magnifications give microscopic fields of different sizes. However, when using a 4 mm. objective, a thinner cover glass must be employed than the one belonging to the Thoma-Zeiss slide, which on account of its thickness prevents proper focusing on the bottom of the depression in the slide. To avoid mistaking other particles in the catsup for bacteria, the rod shaped bacteria only are counted. Howard counts the number in several areas, each consisting of five of the small sized squares and the number of organisms per cc. is calculated by multiplying the average number in these areas by 2,400,000. (That is when the original catsup was diluted three times; if it was diluted five times multiply instead by 4,000,000). We have simplified this procedure thus: When the catsup is diluted five times, add the number of bacteria found in twenty of the small squares. The sum represents the number of millions of bacteria per cc. For greater accuracy other groups of 20 should be counted similarly and the average taken.

REMARKS.

The counting chamber used had ruled off one square mm. The square was divided into 20 equal parts. Thus the small squares formed which we will call unit squares were $1/20 \times 1/20 \text{ mm.} = 1/400 \text{ sq. mm.}$ Since these areas were $1/10 \text{ mm.}$ below the bottom of the cover glass, the liquid seen in each square was $1/400 \times 1/10 \text{ mm.} = 1/4,000 \text{ cmm.} = 1/4,000,000 \text{ cc.}$ Determine the average number of bacteria in 20 to 60 of such units. Since in looking at the unit square we are counting the bacteria in only $1/4,000,000 \text{ cc.}$, the average number of bacteria seen, multiplied by 4,000,000 will give us the number of bacteria in 1 cc. of the solution. If this solution was made by adding 1 cc. catsup to 9 cc. water, or in other words, contained only one part catsup in ten, then the number of bacteria determined for 1 cc. of the solution multiplied by ten will give the number per cc. in the catsup. However, if the solution was made by mixing 5 cc. catsup with 20 cc. water, instead of multiplying by 10, you multiply by 5, etc.

The appended "Table for Determining the Number of Bacteria in a Liquid" was constructed to facilitate this work. Having determined the average number of bacteria in one unit square, refer to this number in the column in the table headed "Bacteria per $1/4,000 \text{ cmm.}$ " On the same line to the right is given the corresponding number per cc.

Under the low power of the microscope the general appearance of the catsup may indicate whether the product was properly made from fresh fruit or whether its manufacture was delayed or the raw product contained overripe or decayed fruit. In the latter case the film of catsup under the cover glass is apt to have a muddy appearance, particles having a more or less indistinct edge and the liquid part having a hazy appearance and containing a large number of bacteria. In good catsup this liquid is clearer and the solid particles are more distinct and more definite in outline.

Different catsups have varying sizes of particles, due probably to the extent to which they were broken up in the cyclone or the mesh of the sieves through which they were put. This disintegration may be so complete that in some microscopic fields no tomato cells are visible, in others a large number of cells still appear intact, while in still others a large number of largely empty cells, or fragments of cell-walls appear, which seem to indicate that the juice had been pressed out, leaving their comparatively valueless containing-membranes. Or, this may be an indication that instead of using whole tomatoes, trimmings were used to manufacture the product. When many of these cell membranes, which are of varying size and thickness, thus appear grouped together it is often difficult to distinguish among them mold filaments, such as those of *Penicilium* which often show a very similar appearance. While a tortuous course and a granular or vacuolated appearance often help us to identify

molds in such cases, yet there seem to be some which appear homogeneous in straight or curved lines like an optical cross-section of the tomato cell wall. Yet they can usually be distinguished from the latter by using a higher power or getting into a different optical plane, when their segmented appearance, color or consistency will reveal their identity. Where longer segments are available for examination the branching serves to indicate the mold filament. Although this may be simulated by the cell wall at its ends where it joins the other sides, yet the experienced microscopist will seldom fail to distinguish one from the other. In those cases where it is impossible to say definitely that a microscopic field contains mold, it is advisable to omit that field from the count altogether and if many such cases occur to prepare another slide of the product. A field is not counted positive unless the mold filament in it, if straightened out or united with other fragments in the field, equal $1/6$ of the diameter of the field.

If a structure in an outlying part of the field needs more careful scrutiny, it is advisable to bring it from its eccentric position into the optical center. E. g., I wish to examine more carefully a particle in the front-right-outer part (near the 8-minute mark of a watch) of the microscopic field. Before moving the slide, to enable me to return to my exact present position, I take the reading of the scale on the mechanical stage. This is 44.2 on the right-to-left-arm and 94.4 on the front-to-back arm. More briefly stated, the position may be indicated thus: 44.2-94.4. The particle in question is then moved to the center (scale reading 43.8-94.6) so that whether I use a higher magnifying ocular or objective, it will still be in the field of view and not outside as may otherwise be the case. Having adjusted the diaphragm to receive the proper amount of light and completed the detailed examination, I then return to the position 94.4-44.2 and continue with the work.

During the 2 years I examined catsups in Iowa and during 1 year in Illinois, I was governed by the U. S. Standard according to which catsup should not show more than:

- 25% of the fields with mold,
- 25 million bacteria per cc.
- 25 yeasts and spores per $1/60 \text{ cmm.}$

However, I always gave the manufacturer the benefit of any doubt by not condemning a catsup which fell below in only one of these. It seems the government also became more lenient as in American Food Journal, July, 1913. Dr. Alsberg says: "We do not condemn the catsups unless two of the determinations run over the U. S. limit." Even then my analyses show that the great majority of those samples I analyzed obtained from stores throughout Iowa and Illinois were adulterated according to law.

CONCLUSIONS.

While the label usually truthfully states the constituents of a tomato product and its net weight, there are many cases in which although it passes the usual chemical examination satisfactorily, it does not come up to the established bacteriological standards but contains an excess of micro-organisms indicating either that it is not the "clean, sound product made of clean, sound, fresh tomatoes," or that it was not properly handled during or after the process of manufacture. Excessive numbers of bacteria often show their presence in catsup as a whitish sediment on the bottom of the bottle. The odor and taste may also indicate their presence if excessive, otherwise they and their decomposition products may be concealed by the strong odors and flavors of the other ingredients. Spoilage even in opened bottles of catsup is prevented by some manufacturers adding an excess of sugar and vinegar.

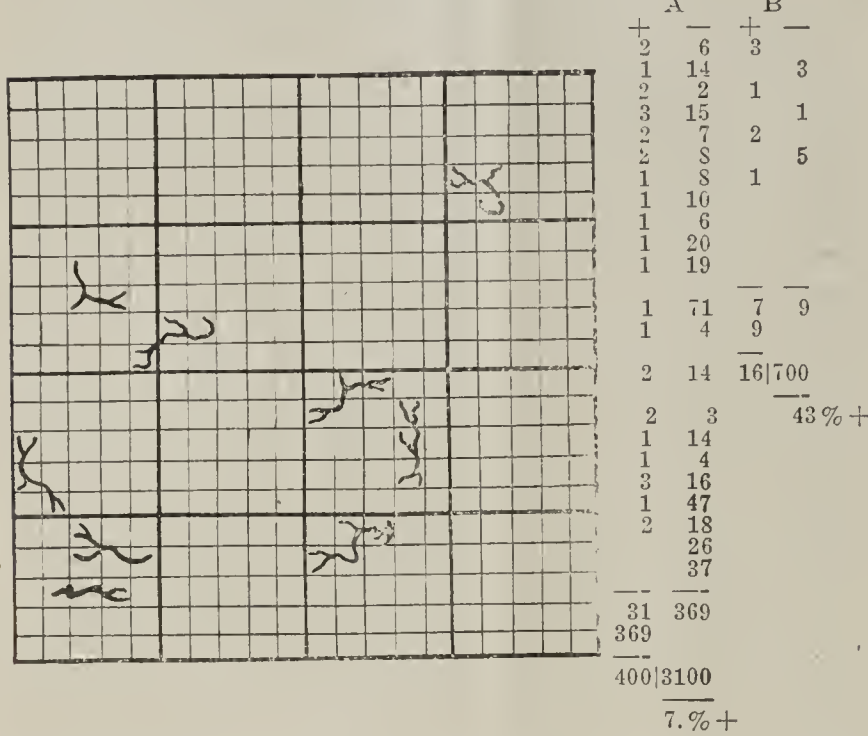
A good catsup has more citric acid less lactic acid than one which is spoiled. A high percentage of lactic acid and little or no citric acid is characteristic of a decomposed product.

Besides physical and chemical, microscopical examinations should be made of catsups. The Howard method is the one usually employed. The commercial methods, although quick and simple, are less scientific and less accurate. Others go to the other extreme and use methods which are not economical and unscientific. Physical cleanliness in the apparatus used is more important than bacteriological asepsis as the dead as well as living micro-organisms are counted.

Methods recommended. Spread undiluted catsup on a slide before covering. This obviates the watery zone around the central mass of pulp with its consequent unequal distribution of and inaccurate count of mold filaments. Dilute catsup five

times before making the count for bacteria, yeast cells and mold spores. These structures can thus be more easily distinguished especially when a magnification of about 500 is used. Simplified methods are given for determining the number per cc.

Diagram showing how by counting small areas [A] manufacturers get a lower percentage of fields with molds than when counting the large areas (official method) [B].



WORK OF CHICAGO BUREAU OF FOOD INSPECTION.

The Department of Health of the City of Chicago in its Bulletin dated August 15, gives an interesting resume of the activities of the Bureau of Food Inspection of the Department. A comparison is made with the report of last year, and the figures indicate a marked increase of activity on the part of this Bureau and better existing conditions. Much of this is due to the awakened interest of the public as to the importance of food inspection, and indicates a general demand for better living conditions. The Bulletin states in reference to the work of the Bureau of Food Inspection:

There were 2,056 inspections of dairy farms made by the bureau during the month of July of this year as against 1,504 for the corresponding month of last year. For the seven months' period there was a total of 9,898 inspections this year with 6,350 farms scoring above 55 as against 8,815 inspections and 5,240 scoring above 55 for the seven months' period of last year. There were 1,223 inspections of milk depots in the city for the month, with only 59 of this number scoring below 70, and 372 pasteurizing plants with only 18 scoring below 70; for the seven months' period there were 2,184 pasteurizing plants, city and country, inspected, of which only 74 graded below 70. For the same period in 1913 there were 495 pasteurizing plants inspected with 37 grading below 70. These figures indicate a marked increase in the volume of work performed as well as improved conditions resulting therefrom.

Chemical examinations were made of 5,859 samples of milk and cream, with only 3.3 per cent of the same showing below grade. For the seven months' period of this year the showing is equally good, there having been 28,947 samples of milk and cream examined, with 3.9 per cent showing below grade. For the same period of last year, 24,111 samples, 7.9 per cent of which were below grade. While there has been a slight improvement in the character of milk and cream, as shown by the bacteriological examinations, over those for the month of July of last year, yet the percentage of samples of both raw and pasteurized milk, containing more than the legal number of bacteria per cubic centimeter, is still showing so large as to emphasize the Department's demands that all milk shall be pasteurized and that the Department shall be permitted to control the processes. The obstacles presented by the milk dealers' litigation against the Department enforcing the use of recording thermometers had much to do with preventing the proper supervision of pasteurizing plants throughout the city and country until the recent decision of the court confirming the Department's contention that the city has the right to control and safeguard its own milk-supply. It is fully expected, however, that from now on the bacteri-

ologic examinations will be of a much more favorable character. For the seven months' period of this year the Food Bureau has brought 527 suits, as against 376 for the corresponding period of last year. There are now pending 234 suits, while at the same time last year there were 885 awaiting disposition. Condemnations of meats at the stock yards for the seven months' period, 184,396 pounds, as against 141,470 for the seven months' period of 1913.

HOW MEAT ANIMALS HAVE ADVANCED.

On August 27 Secretary Houston of the United States Department of Agriculture issued the following statement on the variation in prices of domestic commodities from July 15 to August 15:

"The prices paid to producers of meat animals in the United States advanced 3 per cent during the month from July 15 to August 15. This compares with an average advance from July 15 to August 15 in the past four years of .8 per cent.

"On August 15 the price to producers of the United States for meat animals, beef, cattle, calves, hogs, sheep, lambs and chickens averaged \$7.63, which compares with \$7.20 the average on August 15 a year ago, \$6.56 two years ago, \$5.37 three years ago and \$6.67 four years ago.

"The averages for the United States of prices paid to producers of live stock on dates indicated were as follows:

Item—	August 15				July 15,
	1914.	1913.	1912.	1911.	1914.
Hogs, 100 lbs.....	\$8.11	\$7.79	\$7.11	\$6.54	\$7.72
Beef cattle, 100 lbs....	6.47	5.91	5.37	4.39	6.38
Veal calves, 100 lbs....	8.08	7.53	6.62	5.93	7.80
Sheep, 100 lbs.....	4.87	4.32	4.26	3.98	4.75
Lambs, 100 lbs.....	6.23	5.50	5.60	5.25	6.55
Chickens, 100 lbs.....	13.10	12.80	....	....	13.40
Wool, 100 lbs.....	18.70	15.80	18.80	16.00	18.50
Horses, each	135.20	140.70	142.00	140.80	137.00
Milch cows, each.....	60.70	54.80	46.10	42.30	59.70

"It will be observed that during the past four years there has been a steady advance in price of each class of meat animals and of milch cows; horses, on the other hand, have been declining moderately in price."

RULES WISCONSIN CHEESE NOT IN CONTAINERS.

An important decision of vital interest to the cheese industry of Wisconsin has been made by State's Attorney Owen. In fact, it is more of a reversal of opinion which is of interest. On February 11, 1914, the state's attorney ruled that, according to a state law, packages of brick and limburger cheese were considered as being contained in receptacles, and thereby came under the law that required the weighing of all such packages and the exact weight, etc., marked upon the package.

Naturally this put a hardship on the cheesemen, as they were required by the decision to weigh and mark every package. This plan did not account for the shrinkage of the cheese in storage, and thereby made the plan impractical, as cheese weighed one day would show a different weight a month later.

The matter was taken up by the Southern Wisconsin Cheese and Dairymen's Association, and Sam Stauffacher, of the Badger Co., delegated to protest against the decision of Mr. Owen calling the brick and limburger as pieces, packages or receptacles, which brought them under the law. Mr. Stauffacher consequently went to Madison and had an audience with Mr. Owen. He later received a letter stating that the state's attorney had reversed his decision of February 11, and held that the packages of brick and limburger are in wrappers and do not come under the law governing weights in receptacles.

CANADIAN LAND AND APPLE SHOW.

The season for apple shows is approaching and Consul General F. Dillingham, Winnipeg, Canada, has sent the following announcement to the U. S. Department of Commerce:

The Harvest Festival and Low Cost of Living Exposition will be held at Winnipeg, October 23-30, 1914. A complete display of what the west wants to help lower the high cost of living will be invited. The land, apple, pure food, and produce show will all be combined in the big convention hall, occupying 25,000 square feet of floor space. Modern methods of making \$1 go where many dollars now go will be shown in practical form. The grand championship gold medal Government prize for the best display of apples will be the best ever offered in Canada. The fruit branch of the Ontario Government has asked for 40 per cent more exhibition space than occupied at last year's show, while British Columbia has asked for double the space.

A Scientific Study of Wrapped Bread

THE problem of wrapping bread in the bakery is receiving marked attention from the economist, sanitarian, clubwoman, and others interested in clean food. Bakers have discussed the question, at conferences and have spent several thousand dollars for research work upon wrapped bread by a public analyst.

The cost of wrapping was one of the first phases of the matter to be considered and the results of experimental work and of conferences with bakers have justified the decision that an increase of 5 per cent on the price of the bread would cover this cost. It has also been shown that wrapped bread may lose 7.6 per cent of water in seven days, while unwrapped bread loses 17.3 per cent, and the wrapped bread is in good condition at the end of 72 to 96 hours, while at the end of three days unwrapped bread is hard, dry, and unsalable. This suggests that, other phases being favorable, wrapped bread would present a solution for the great economic waste of stale bread, and that it would preserve the bread so that it would be fresh, clean and palatable for at least three days.

Experimental work has recently been carried on by the Bureau of Chemistry at Washington, D. C., to study the following phases of this matter; first, the kind of paper best adapted for wrapping bread; second, the lapse of time necessary after the bread is baked before wrapping; third, the number of bacteria to be found on wrapped bread as compared with the number found on unwrapped bread; and fourth, the relative weights of wrapped and unwrapped bread. Two bakeries co-operated with the Bureau in this work. Nine kinds of paper presenting decided differences in thickness, waxing, and porosity were selected.

Bread wrapped and unwrapped was also purchased in a number of retail stores for bacteriological examination.

In every experimental baking, when the bread was removed from the oven thermometers were immediately inserted into three loaves and the temperature noted at given intervals. The temperature of the room was also noted. One loaf was wrapped in sterilized parchment paper when fresh from the oven and carried at once to the laboratory for bacteriological examination. After the bread had been out of the oven for one hour, three loaves were weighed, wrapped and set aside. This was repeated at intervals of one hour for five hours. Three loaves were also weighed on removal from the oven and in periods of 1, 3 and 5 hours in the bakery and allowed to remain unwrapped. All the bread was taken to the laboratory on the following day and there held at room temperature, some loaves exposed and others enclosed in a glass case. Weights and bacteriological samples were taken at certain intervals.

Bacteriological samples were taken from the outside of the loaf only. About 8 sq. cm. of a thin portion of the crust were cut from the top, bottom and two sides of each loaf with a sterile knife. The samples were then weighed, shaken with sterile water and glass shot for twenty minutes and the liquid then examined according to the methods recommended by

the American Public Health Association. The various types of organisms were identified by the methods recommended as above.

It was found that paper waxed on both sides prevented the bread wrapped therein from losing as large an amount of moisture as was lost by the bread wrapped in paper waxed on one side only, which, in turn, withheld more moisture than unwrapped paper. It seems, therefore, that for breads whose crusts are to be kept comparatively firm and dry, such as the Vienna and French breads, porous paper having no wax on either side may be best. For the ordinary type of bread none of the paper used showed detrimental results from a physical standpoint.

Bread reached approximately the temperature of its surroundings after three hours' cooling and when wrapped at that time did not retain heat sufficient to favor the growth of organisms appreciably. The bread which was cooled only one hour and then wrapped in waxed paper retained enough heat and moisture to favor the growth of certain organisms. Those loaves which were cooled five hours before wrapping showed the presence of a greater number of organisms than the bread which was cooled only one hour, suggesting that the bread may become contaminated while cooling in the bakery. It was found that bread fresh from the oven has a practically sterile crust.

The relative weights of the wrapped and unwrapped bread in the experiments with these two bakeries showed the wrapped bread to be from 7.5 per cent to 13.9 per cent less in weight than the unwrapped bread. This difference seems more than should be necessary to cover the cost of wrapping.

Unwrapped bread showed signs of becoming stale sooner than wrapped bread, and no objectionable odor or taste were discernible in the wrapped bread at the end of 114 hours.

Practically none of the wrapped bread was found to have bacteria of the B. Coli type, which are organisms whose presence serve as delicate indicators of unclean handling. It was found that of the bread obtained from retail markets 62 per cent of the samples of unwrapped bread showed the presence of organisms of the B. Coli type in 0.1 gram quantities, while only 7 per cent of the wrapped bread showed the presence of these organisms.

It is therefore apparent from this work that bread wrapped after three hours' exposure in the bakery will reach the consumer in a more desirable condition as to cleanliness and texture, and not lessened in palatability when compared with unwrapped bread.

Complete details of the bacteriological and chemical tests are published with complete tables in this month's issue of the American Journal of Public Health.

Olive oil imports for the first six months of 1914 aggregated 3,000,000 gallons valued at \$4,000,000, as reported by the Department of Commerce. Italy was the largest exporter.

MEAT PACKERS' CONVENTION.

The 1914 Meat Packers' Convention will be held at Chicago, October 19, 20 and 21.

United States Department of Agriculture.

OFFICE OF THE SECRETARY,

FOOD INSPECTION DECISION 156. WINE.

As a result of investigations carried on by this department and of the evidence submitted at a public hearing given on November 5, 1913, the Department of Agriculture has concluded that gross deceptions have been practiced under Food Inspection Decision 120. The department has also concluded that the definition of wine in Food Inspection Decision 109 should be modified so as to permit correction of the natural defects in grape musts and wines due to climatic or seasonal conditions.

Food Inspection Decisions 109 and 120 are, therefore, hereby abrogated and, as a guide for the officials of this department in enforcing the Food and Drugs Act, wine is defined to be the product of the normal alcoholic fermentation of the juice of fresh, sound, ripe grapes, with the usual cellar treatment.

To correct the natural defects above mentioned the following additions to musts or wines are permitted:

In the case of excessive acidity, neutralizing agents which do not render wine injurious to health, such as neutral potassium tartrate or calcium carbonate;

In the case of deficient acidity, tartaric acid;

In the case of deficiency in saccharine matter, condensed grape must, or a pure dry sugar.

The foregoing definition does not apply to sweet wines made in accordance with the Sweet Wine Fortification Act of June 7, 1906 (34 Stat., 215).

A product made from pomace, by the addition of water, with or without sugar or any other material whatsoever, is not entitled to be called wine. It is not permissible to designate such a product as "pomace wine," nor otherwise than as "imitation wine."

D. F. HOUSTON, Secretary of Agriculture.
Washington, D. C., June 12, 1914.

FOOD INSPECTION DECISION 157.

Amending Regulation 29, which relates to marking the quantity of food in package form.

Paragraph (h) of regulation 29 of the Rules and Regulations for the Enforcement of the Food and Drugs Act is hereby amended by striking out the words "minimum weight 16 oz." and inserting in lieu thereof the words "minimum weight 10 oz.," so that paragraph (h) as amended shall read as follows:

The quantity of the contents may be stated in terms of minimum weight, minimum measure, or minimum count, for example, "minimum weight 10 oz.," "minimum volume 1 gallon," or "not less than 4 oz.;" but in such case the statement must approximate the actual quantity and there shall be no tolerance below the stated minimum.

W. G. McADOO,
Secretary of the Treasury.

D. F. HOUSTON,
Secretary of Agriculture.

WM. J. HARRIS,
Acting Secretary of Commerce.

Washington, D. C., July 25, 1914.

STATEMENT OF CONTENTS ON FRUIT IN PACKAGE FORM.

DEAR SIR: The requirement of subdivision (a) of regulation 29 as amended (F. I. D. 154), that the statement shall be "on the outside of the covering or container usually delivered to consumers," was intended to indicate which covering should bear the statement when more than one container was used. It was not intended to imply that packages of food products might be sold unmarked.

The question as to whether a certain article constitutes "food in package form" within the meaning of the act of March 3, 1913, amending the Federal Food and Drugs Act, is a question of law which can not be finally determined by this department. In the opinion of the department, however, apples and other varieties of fruit packed in barrels or boxes, potatoes in sacks, and fruit in crates or baskets are all food in package form within the meaning of the law, and should be marked with the quantity of the contents in accordance with regulation 29, as amended by Food Inspection Decision 154.

You ask—

"Am I right in my understanding that this law applies only to the package in which commodities were originally packed? The question arises in the case of a grocery man who buys six or eight barrels of apples on the public market, takes them to his store, and distributes them in peck, quart, and half-bushel lots. He may send these out in baskets or paper sacks. Is it expected that under these circumstances he shall also be required to mark each package he sends out?"

In the opinion of the department the net-weight amendment to the Federal Food and Drugs Act does not apply where the goods are not in package form at the time of sale in the District of Columbia or in the Territories or at the time of shipment in interstate or foreign commerce.

The department is unable to agree with you that a statement of the quantity of the contents is not required on repacked articles. If in package form otherwise subject to the Food and Drugs Act, the quantity of the contents must be stated, irrespective of whether the articles remain in the containers in which first packed.

The department is further of the opinion that you are correct in your interpretation of the law as set forth in the postscript of your letter, that the marking of boxes of apples to show merely the number of apples therein is not a sufficient marking for the purposes of the net weight amendment.

Respectfully,

D. F. HOUSTON, Secretary of Agriculture.

MARKING PACKAGES OF CITRUS FRUIT UNDER NET-WEIGHT AMENDMENT.

DEAR SIR: In the enforcement of the net-weight amendment, this department is concerned with the quantity of the contents in a package and can not undertake to advise a manufacturer of containers as to the labeling thereof, inasmuch as the containers may be used for a wide variety of products and under conditions over which the manufacturer of the containers has no control.

The statement of the quantity of the contents in the case of citrus fruits may be expressed in terms of dry measure as provided by paragraph (e) of Food Inspection Decision 154. If the declaration is made in accordance with paragraph (g), the statement of the number of oranges, or other fruit, which a given crate or box contains must be qualified by a statement of the size of the fruit. This should be given in terms of the average diameter in inches, which it is believed may be easily determined by means of the "sizer" in accordance with the usual trade custom. A statement of the cubical capacity of a box as 3,456 cubic inches is not a statement of the quantity of the contents, neither is it in the terms of weight, measure, or numerical count as provided by the regulations.

Respectfully,

C. F. MARVIN, Acting Secretary of Agriculture.

BOTTLED-IN-BOND GOODS.

DEAR SIR: Replying to your inquiry relative to the statement of quantity on the "bottled-in-bond" stamp on whisky, you are informed that in the opinion of this bureau such marking is not a sufficient compliance with the amendment of March 3, 1913, to the Food and Drugs Act and regulations issued thereunder. The law and the regulations require that the statement of the quantity of the contents shall be plainly and conspicuously made. The statement of the quantity on "bottled-in-bond" stamps is not regarded as a plain and conspicuous statement within the meaning of the law and the regulations.

Respectfully,

C. L. ALSBERG, Chief.

THE EXPRESSION "NO. 1/2," REFERRING TO THE SIZE OF CANS, NOT CONSIDERED MISLEADING ON SHIPPING CASES.

DEAR SIR: In reply to your inquiry whether the use of the statement "No. 1/2" on a shipping box which contains two dozen cans, each of which bears a true declaration of the quantity of the contents, is in conformity with the Food and Drugs Act as amended March 3, 1913, and the regulations thereunder, you are informed that the use of the statement "No. 1/2" will be permitted in the marking of outside shipping containers. This will not permit the use of the term "1/2 cans," which is considered misleading as indicated in a previous letter. See S. R. A., Chem. 6, p. 416, letter No. 45.

Respectfully,

C. L. ALSBERG, *Chief.*

STATEMENT OF CONTENTS ON PACKAGES OF PREPARED MUSTARD.

DEAR SIR: It is permissible to label prepared mustard either in terms of weight or in terms of measure, in accordance with paragraph (f) of Food Inspection Decision 154.

Respectfully,

C. L. ALSBERG, *Chief.*

RECALL OF LETTER 36 IN S. R. A., CHEM. 5, P. 311.

DEAR SIR: The above-mentioned letter was in error in stating that drams are units of troy weight. "Dram" unqualified refers to a recognized subdivision (one-sixteenth) of an avoirdupois ounce. A "fluid dram" is one-eighth of a fluid ounce. The term "dram" is also used as an expression of apothecaries' weight, but such usage does not have the legal basis that is accorded the avoirdupois weight or the United States liquid measure.

The reply is hereby recalled, and the following should be substituted therefor:

DEAR SIR: The subject of your inquiry is covered by paragraph (d) of the regulations under the weight and volume amendment to the Food and Drugs Act (F. I. D. 154).

There would be no objection to the statement "5 fluid drams." However, a statement reading "15 fluid drams" is not in conformance with paragraph (d), inasmuch as 8 fluid drams constitute 1 fluid ounce. Please also note the exemptions for small packages given in paragraphs (j) and (k).

Respectfully,

C. L. ALSBERG, *Chief.*

AMENDMENT TO LETTER 25 IN S. R. A., CHEM. 3, P. 113.

DEAR SIR: Inasmuch as Food Inspection Decision 156 permits the correction of a wine deficient in saccharine matter by the addition of a pure dry sugar, our previous letter (S. R. A., Chem. 3, p. 113, letter 25) is hereby revoked so far as it is inconsistent with that decision.

Respectfully,

C. L. ALSBERG, *Chief.*

PEPPER SHELLS IN GROUND PEPPER.

DEAR SIR: Your request for a ruling covering the use of pepper shells in ground pepper is hereby acknowledged.

The standards in Circular 19 state that ground pepper is the product made by grinding the entire berry and contains the several parts of the berry in their normal proportions. White pepper is the dried mature berry of *Piper nigrum* L. from which the outer coating or the outer and inner coatings have been removed, and contains not less than 6 per cent of extract, etc.

The sale as pepper of mixtures of pepper and ground pepper shells is clearly prohibited by the Food and Drugs Act. Section 7 of the act, subdivisions 1 and 2, under food, state that a food is adulterated: First, if any substance has been mixed and packed with it so as to reduce or lower or injuriously affect its quality or strength; second, if any substance has been substituted wholly or in part for the article.

Respectfully,

C. L. ALSBERG, *Chief.*

USE OF THE TERMS "SUGAR PEAS," "SUGAR CORN," AND "CHAMPION PEAS."

DEAR SIR: Reference is made to your inquiry regarding the use of the terms "sugar peas," "sugar corn," and "Champion peas."

This matter has been discussed with the Bureau of Plant Industry, and as a result of the statements made by that bureau you are informed that the use of the terms "sugar corn" and "sugar peas," as applied to varieties which are distinctly sweet, is not regarded as objectionable. The terms "sweet corn" and "sugar corn" are used interchangeably, and the term "sugar peas" is used also for some of the higher grades of wrinkled peas which are used in canning. The term "sweet peas" would not be regarded as a synonym for "sugar peas," since the former term is confined exclusively in horticultural literature to the types of peas grown for their flowers. Sugar

is customarily used in connection with the canning of both corn and peas for the purpose of sweetening the liquor, and it should be understood that the use of sugar in canning corn or peas does not justify the use of the terms "sweet corn," "sugar corn," and "sugar peas" for such products. As stated above, the use of these terms is only proper when the varieties are distinctly sweet. In this connection, the provisions of Food Inspection Decision 66 should be borne in mind.

It is the opinion of the bureau that the term "Champion" is objectionable in connection with the labeling of peas, since the use of this word would undoubtedly lead to confusion, owing to the fact that the word "Champion" is often used as a contraction for the name "Champion of England." This is a recognized horticultural name for a standard variety of peas. The use of the word "Champion" would only be regarded as proper in connection with peas belonging to the "Champion of England" variety.

Respectfully,

C. L. ALSBERG, *Chief.*

LABELING OF "SKIMMED" AND "PART-SKIMMED" CHEESES.

DEAR SIR: The bureau requires all skimmed or part-skimmed cheeses to be plainly labeled or branded with the words "skimmed" or "part-skimmed" upon the wrapper or container of each individual cheese, as well as upon the case in which a number of small cheeses are packed.

Skimmed or part-skimmed cheeses of a size commonly sold uncut to the consumer, and not inclosed in a wrapper or other individual container, must be branded or labeled, in accordance with the fact, on the rind of the cheese itself.

Large cheeses, skimmed or part-skimmed, which are not inclosed in a wrapper or other covering than the wooden drum or box, and which are commonly sold to the consumer in segments or slices and not as entire cheeses, need not have the brand or label on the cheese itself, but only on the drum or box. If, however, any circular or printed matter be inclosed with such cheese, it must bear in conspicuous type the words "skimmed" or "part-skimmed," in accordance with the fact.

Respectfully,

C. L. ALSBERG, *Chief.*

NOTICE TO IMPORTERS—THE IMPORTATION OF FENNEL, CORIANDER, CARDAMOM, ANISE, AND CELERY SEED.

DEAR SIR: You are advised that it is the opinion of this bureau from the data available that fennel, coriander, cardamom, anise, and celery seed, respectively, should meet the following specifications:

Fennel should contain not less than 96 per cent of sound fennel seed, nor more than 9 per cent of ash.

Coriander should contain not less than 95 per cent of sound coriander seed, and not more than 7 per cent of ash.

Cardamom should contain not less than 64 per cent of sound cardamom seed and not more than 36 per cent of inert material, including the pods; ash of the whole fruit not to exceed 8 per cent.

Anise should contain not less than 97 per cent of sound anise seed and not more than 9 per cent of ash.

Celery seed should contain not less than 90 per cent of sound celery seed, and not more than 10 per cent of ash.

The above products must not contain fecal matter or anything of a harmful nature.

Action at the ports of entry will be governed according to the above specifications.

Respectfully,

C. L. ALSBERG, *Chief.*

STATEMENT OF THE QUANTITY OF CONTENTS ON SHIPPING CASES.

DEAR SIR: If two or more packages of food, each of which bears a statement of the quantity of the contents on the outside thereof, in conformity with the Food and Drugs Act as amended March 3, 1913, and the regulations thereunder, are placed in a box, bag, barrel, crate, or similar container for convenience in shipping only, it is not required that the quantity of the contents shall be stated also on such box, bag, barrel, or other container. If, however, the quantity of the contents be stated on any such box, bag, barrel, or container, the statement should be plain and correct.

Respectfully,

C. L. ALSBERG, *Chief.*

SANITARY LAWS FOR TEXAS.

THE AMERICAN FOOD JOURNAL is advised that Mr. Tom Johnson, inspector of the pure food and drug department of Texas is preparing a bill to have introduced into the next legislature to provide comprehensive sanitary laws for the state. Local laws are said to be ineffective and do not meet necessities.

Recent Laws and Rulings

CONVICTED OF VIOLATING NET WEIGHT LAW.

(Connecticut.) The ever present source of litigation for determining the validity of regulations designed to protect the consumer against the imposition of short weights and measures, again finds expression in the case of the State of Connecticut vs. McGee, decided by the Supreme Court of Connecticut. The defendant was convicted upon an information which charged him with having sold, on March 8, 1913, food in package form, namely, one can of tomatoes, without the net quantity of the contents of the package being plainly and conspicuously marked upon the outside of the package. The information was founded upon the provision of chapter 134 of the Public Acts of 1911, which, so far as material to this case, reads as follows:

"Sec. 1. Any person who shall sell or offer for sale food in package form, unless the net quantity of the contents be plainly and conspicuously marked on the outside of the package . . . shall be subject to the penalties provided in chapter 225 of the Public Acts of 1907.

Sec. 3. This act shall take effect from its passage, but no penalty shall be enforced for any violation of the provisions of section 1 arising from the sale of food prior to eighteen months after the passage of this act. Approved July 11, 1911.

The defendant admitted having made the sale later than the time as specified in the statute as "prior to eighteen months after the passage of this act," but defended on the theory that since the tomatoes were enclosed in the can prior to eighteen months after the passage of the act, there had been no violation on his part. The question as to the proper construction to be placed upon the statute was thus raised.

The court held that a sale of food prepared and enclosed in unmarked packages after the passage of the act, subjected the seller to the penalties imposed. The court rendered a rather voluminous opinion which is quoted in part: "The purpose of the statute is apparent. It contains a general prohibition of the sale of food in package form unless it is marked as indicated. Prior to this enactment the sale of food in unmarked packages was not unlawful. The purpose of present act was to prevent sale of packages unless net quantity of the contents of package is marked thereon."

Section 3 of the act, after providing expressly that it shall take effect from its passage, adds the provision upon which the defendant relies to support his claim. He says that the last clause of the section, "prior to 18 months after the passage of this act," modifies the words "prepared and enclosed" which immediately precede it. This would doubtless be the natural grammatical construction, and should be followed unless it leads to result which it is clear that the legislature in enacting the statute did not intend. If followed it leads to the result claimed by the defendant and the prohibition of the act applied only to the sale of food which should be prepared and inclosed in packages after January 11, 1913, 18 months after the passage of the act. That is, the act did not prohibit the sale at any time of unbranded package foods which existed in packages at the time the act was passed, or which should be prepared and inclosed in packages within 18 months thereafter. This means that during the period of 18 months after the act was passed there could be no sales of food in unmarked packages which would subject the seller to the penalties prescribed by the act. This is repugnant to the plainly expressed intent of the act. Had this been intended section 3 should have read:

"This act shall not take effect until eighteen months after its passage and shall not apply to sales of foods prepared and inclosed in packages prior to the time when it takes effect."

The construction thus claimed renders the first clause of section 3 nugatory. Some other construction must therefore be sought, for it must be presumed that the legislature by the explicit language of the first clause of section 3 intended the act to immediately affect some sales at least, included in the general prohibition of section 1 of the act. We must look through the whole statute to determine its proper construction and the proper construction of its parts.

To determine what sales, if any, were intended to be saved from the penalties of the general enactment it is pertinent to ask, What sales, if any, ought to be saved from such penalties? Naturally sales of foods prepared and inclosed in packages at the time the act took effect. These packages would be on hand at the time when the law making their sale unlawful, when unmarked with the net quantity of their contents, was enacted. There would be good reason for ex-

cepting their sale from the immediate operation of the statute. It might lead to public inconvenience to prevent the immediate sale of these, because time would be required for merchants and packers to restock with new goods properly marked of the character ordinarily carried by them, or to properly mark the goods which were on hand. As such goods had been prepared and inclosed when their sale, unmarked, was lawful, it would be proper to except from the provisions of the act, for a reasonable time, the sale of such unmarked packages. No good reason is apparent for allowing the owners of such packages and others during this time to stock up with other unmarked foods to be sold without penalty afterwards for an indefinite period until wholly disposed of. This would violate the plain intent of the enacting clause. It is not conceivable that the legislature intended this when it said that the act should take effect from its passage. What it intended was that the act should have effect as to sales of unbranded package foods thereafter prepared and inclosed, but that the sale of such package foods prepared and inclosed at the time the act took effect should not, for eighteen months after its passage subject the seller to the penalties provided by the act. While the language is not felicitously chosen to express this intent we think that it is readily susceptible of that meaning. It is the only construction of the whole act which gives effect to all of its language and gives the act an immediate effect after its passage as its language requires; unless it be said that the proviso relates only to sales of foods and leaves the act to operate upon the offering of them for sale. Such a construction would be preposterous. It would render the defendant guilty and punishable for offering the goods for sale at any time after the passage of the act, while for the actual sale of them he would be immune from punishment. We cannot impute to the legislature an intent to accomplish such a result." State v. McGee, 91 A. 271.

REGULATION OF SLAUGHTER HOUSES.

(New Jersey.) Cases involving the regulation of slaughterhouses have occupied considerable of the attention of our courts. Generally the question presented involves the constitutionality of laws governing their regulation. In Board of Health of New Jersey vs. Schwartz Brothers Company such was the situation. The action was originally brought in the first district court of Jersey City to recover a penalty from Schwartz Bros. Company for a violation of the first section of an act of the legislature entitled.

"An act providing for the licensing, regulation, conduct and operation of slaughterhouses, abattoirs, or places where animals are slaughtered for human food in the state of New Jersey, and providing penalties for the violation of the provisions of said act."

The specific charge was that defendant had not operated its slaughterhouses in accordance with the provisions of the act herein referred to. In the city court judgment was entered against Schwartz Brothers Company. An appeal was taken to the Supreme Court and two reasons were urged for reversing the judgment of the city court: First, that the statute did not apply to the operations of the defendant; and second, that it was void as being repugnant to certain provisions of the state constitution as interfering with private property rights, and also infringing upon the commerce clause of the federal constitution, as being an attempt on the part of the state to regulate meat inspections which as a matter of law are a part of the jurisdiction of the federal government. The Supreme Court affirmed the holding of the city court, saying that the statute was not, as charged by defendant, repugnant to both state and federal constitutions.

Board of Health, New Jersey v. Schwartz Bros., 90 A. 1061.

CANDY PULLING MACHINE PATENT INVALID.

(Federal.) An appeal taken from the District Court of the United States for the District of Maryland to the Circuit Court of Appeals Fourth Circuit, involving the validity of the Hildreth Candy Pulling Machine patent, the higher court affirmed the decree of the District Court, holding the patent as invalid as covering more than complainant had actually invented. The case was brought by Herbert L. Hildreth against the Lauer and Suter Company of Baltimore, charging the Lauer Company with having infringed the complainant's patent. The patent described the machine as "A candy pulling machine comprising means for supporting the candy against gravity, means for pulling the candy, and means for producing a relative in and out motion of said supporting and pulling means." The trial court (District Court) reached the

conclusion that the patent should be declared invalid for the reason that it covered much more than the complainant had actually invented. This conclusion, the Court of Appeals held to be correct.

Hildreth v. Lauer & Suter Co., 213 Fed. 788.

"MILK" MEANS STANDARD MILK.

(Massachusetts.) A contract to sell milk means a contract which fulfills the requirements of Rev. Laws, c. 56, sections 56, 57, defining standard milk and making the sale of milk below standard a misdemeanor; and a delivery of other kind of milk would fail, as a matter of description, to comply with the contract to sell and deliver milk.

Whitcomb v. Boston Dairy Co., 105 N. E. 554.

STATUS OF OYSTER BED LANDS.

(New York.) Laws 1884, c. 385, granted all the state's right, title, and interest to lands under water in certain bays in Suffolk county to the county for oyster culture, to be managed and controlled by the county board of supervisors, providing for the appointment of commissioners of shell fisheries, who were given power to sell, in parcels not exceeding four acres, any of such land under water which was situate for planting oysters, but no land on which the commissioners had determined there was a natural growth of clams of a specified quantity could be sold and conveyed for oyster culture. By Laws 1906, c. 640, the act of 1884 was amended so as to prescribe detailed procedure to determine the character of the beds, including natural scallop beds, in the lands barred from sale, providing that no portion of the lands set apart as clam, shell, or scallop beds should be sold for oyster culture, except that 25 resident taxpayers of the county might petition the board of supervisors, setting forth that some portion of the land so set apart had for five years ceased to be a clam, shell, or scallop bed, whereupon redetermination of their character might be had. Held that, after the act of 1906, lands set apart as clam, shell, or scallop beds could not be granted for oyster culture until a redetermination by the commissioners had established that they had ceased for five years to be natural shell fish beds; and hence a deed of such reserved lands, made within five years after the original determination was void.

Suffolk County v. Edwards et al., 148 N. Y. 304.

OPINION IN VINEGAR CASE.

OPINION BY JUDGE M'GARRELL, A. L. J.

Commonwealth vs. C. W. Burtnett. In the Court of Quarter Sessions of Dauphin County, Pennsylvania. September sessions, 1913. No. 191.

Motion in arrest of judgment and for a new trial.

The defendant has been convicted of selling "as and for apple or cider vinegar a certain substance, article and compound which was not then and there the legitimate produce of pure apple juice and not made exclusively of apple cider." The indictment charges a violation of the Act of June 18, 1897 (P. L. 168) as amended by the Act of May 21, 1901 (P. L. 275) and is substantially in the words of the act.

The defendant admitted the making of the sale and that the vinegar sold contained approximately 20 per cent of water added to it in the process of manufacture. With this admission the commonwealth closed its case. The defendant asked that the jury be instructed to acquit on the ground that the facts proved did not show any violation of the statute. This request was refused and an exception noted for the defendant. The defendant then offered to prove by James D. Bashford that he was a cider vinegar manufacturer at Lyons, N. Y.; that he manufactured the vinegar sold in this case; that the capacity of his factory was about 15,000 barrels a year; that he was familiar with the usual methods of making cider vinegar and that the use of water is necessary as part of the process of manufacture and is so recognized in the practice of cider vinegar manufacturers. Upon objection by the commonwealth this evidence was excluded and an exception noted for the defendant. Various other offers were made of like character relating to the process of manufacture; the acetic acid content of the effluent produced by manufacturing process and the supposed necessity of adding water to adapt it to domestic use. All these various offers were objected to as immaterial and irrelevant and they were excluded with exception to defendant. The substance of all these offers was to show that the use of water was necessary in the manufacture of vinegar from cider or apple juice, and that the use of water was necessary to reduce the acetic acid content so as to adapt it to domestic use. The defendant contends that if the use of water is customary and necessary the act must be so construed as to permit its use. We are unable to assent to this proposition. The legislature must

be presumed to have been familiar with the methods of manufacturing vinegar from cider or apple juice, and if the use of water was necessary for any purpose in the process of manufacturing, provision for its use would undoubtedly have been made. The language of the statute seems to us too clear to permit any doubt as to the legislative intent. It expressly forbids the sale or offering for sale as apple or cider vinegar any article (a) "which is not legitimate product of pure apple juice," or (b) "vinegar not made exclusively of said apple cider." The legitimate product of pure apple juice means a product derived from apple juice by the operation thereon or therein of natural laws without any addition, subtraction or artificial manipulation. The second paragraph of the prohibition "not made exclusively of said apple juice" explains the first and makes the statutory meaning clear beyond peradventure. The rules of statutory construction are well settled.

In *Mercer vs. Watson*, 1 Watts 339, it is held that "Statutes are generally to be understood and construed according to ordinary meaning and common acceptance of their terms."

In *Commonwealth vs. Wells*, 110 Pa. 467, it is said, "We are to look to the words in the first instance and when they are plain we are to decide on them. If they be doubtful we are then to have recourse to the subject matter."

In *Commonwealth vs. Matthews*, 210 Pa. 392, it was held that testimony to explain the legislative intent or to point out the objects the legislature had in view is wholly inadmissible.

The general principles of statutory construction as gathered from numerous cases are clearly stated in *Endlich on Statutes*, section 4, page 7, as follows:

"Where the words of a statute are plainly expressive of an intent not rendered dubious by the context, the interpretation must conform to and carry out that intent. It matters not, in such cases, what the consequences may be. It has therefore been distinctly stated from early times down to the present day that judges are not to mould the language of statutes in order to meet an alleged convenience or an alleged equity; are not to be influenced by any notions of hardship or of what in their view is right and reasonable or is prejudicial to society; are not to alter clear words, though the legislature may not have contemplated the consequence of using them; are not to tamper with words for the purpose of giving them a construction which is supposed to be more consonant with justice than their ordinary meaning. Where by the use of clear and unequivocal language capable of only one meaning anything is enacted by the legislature it must be enforced, even though it be absurd or mischievous. If the words go beyond what was probably the intention, effect must nevertheless be given to them. They cannot be construed contrary to their meaning as embracing or excluding cases merely because no good reason appears why they should be excluded or embraced. However unjust, arbitrary, or inconvenient the intention conveyed may be, it must render its full effect."

It is not the duty of the court to make the law reasonable, but to expound it as it stands according to the real sense of the words.

The first section of the Act of May 21, 1901, contains the prohibition above referred to. The second section relates to vinegar made by fermentation, and declares that it shall be branded "fermented vinegar." It also provides that all vinegar made wholly or in part from distilled liquor shall be branded as "distilled vinegar" and "all such distilled vinegar shall be free from coloring matter added before, during, or after distillation, and from color other than that imparted to it by the process of distillation, and shall contain not less than four per centum by weight of absolute acetic acid." This is the only provision in the statute in regard to acetic acid and it relates only to distilled vinegar and not to apple or cider vinegar. The statute fixes no percentage of acetic acid for cider or apple vinegar, but, as already stated, clearly prohibits the sale of any article as apple or cider vinegar which is not the legitimate product of pure apple juice or not made exclusively of said apple cider. The suggestion contained in the several offers made by defendant, above referred to, that the use of water was necessary in order to reduce the acetic acid content does not seem to us to have any relevancy to cider vinegar, with respect to the acetic acid of which the statute is entirely silent. It is clearly intended to prevent any fraud or imposition upon the public in the sale of cider vinegar, and there is no contention that the Act is in itself unconstitutional.

We are therefore constrained to give full force and effect to the words found in the first section of the statute and conclude that the defendant has been properly convicted of a violation thereof. The motion in arrest of judgment and for a new trial is accordingly overruled and the Commonwealth is at liberty to move for the entry of judgment upon the verdict.

Washington, D. C., Correspondence

(From our Staff Correspondent.)

WASHINGTON, Aug. 31.—In less than a month, probably, the food and drug trades will be under the painful necessity of dealing with another agency of the federal government—the Federal Trade Commission, composed of five men empowered to make orders to merchants, manufacturers and distributors under the anti-trust law and under the statute of its own creation. “Unfair competition” is made unlawful, and the Commission decides what is unfair competition.

This law is supplementary and in addition to the anti-trust statute that has been on the books for nearly a quarter of a century. Before the business men of the country realize it, they are going to be up against a proposition that will make them cross-eyed. Congress has not finally passed it but it will do so.

Here is just one question: Jones sells all his products on condition that they be re-sold at a stated price. He advertises, and builds up a name for himself and for his goods, until they have a recognized standing in the markets.

But he has forty or fifty competitors, all putting out the same kind of goods, probably just as good and some better and some not so good. They all lack one essential quality—that of notoriety. The retailer who decides that it would be good business for him to cut under the re-sale price Jones has fixed is aiming for one thing—advertisement for himself at the expense of Jones. If he advertised Smith's goods at a lower price than Smith had fixed nobody would know the fact because Smith has not spent a tithe in advertising his products that Jones has. Smith had the same opportunity; he may not have had the same amount of capital, but the law never undertook to equalize capital or overcome disadvantages caused by inequality of capital.

If Jones withdraws his goods from the man who cut the price of Jones' goods, will it be “unfair competition”? Will it be evidence that Jones is trying to monopolize the market, or will it be evidence that Jones is trying to preserve the property created by his persistent advertising of the things he makes and sells?

This is not a hypothetical case at all. Testimony has been put before the courts, in suits under the anti-trust law, the object of which was to show that what Jones was doing was in pursuit of a devilish game to monopolize the business of furnishing catsup and pickles or something else for the whole retail trade of the country.

The Federal Trade Commission will have jurisdiction to entertain complaints of this kind. It will have the power to issue orders bidding an enterprising manufacturer to cease and desist from such practices on the theory that that is unfair competition. Before the enactment of this law “unfair competition” had a definite meaning. The words meant making something in imitation of something else on which there was a trade mark well known to the public. Discussions in Congress during the pendency of the bill show that Congress intended and did give the words a supplemental meaning.

The new statute intends to place in the hands of five men the power to regulate business as minutely as the Interstate Commerce Commission regulates carriers by railroad. Owing to the denunciation of lobbying at the White House and in Congress, the business men of the land were practically voiceless during the consideration of the bill. The country is so large, and thoughtless too, that denunciation of a man at the White House or by a senator in the capitol sometimes carries with it the conviction of Holy Writ to those who do not happen to know the man or set of men against whom the denunciation is delivered.

The only way in which the business men of the country can hope to cope with the situation is to be so well informed as to what is going on before the Commission of five men that they will be prepared at all times to stoutly resist the encroachments of the Commission. Every business that has a capital and surplus of \$5,000,000 must have an agent in Washington upon whom orders of the Commission may be served.

If the food and drug manufacturers, or any other line of men whose business will be affected by the new law, will combine to hire men who knew something of the jurisprudence that has grown up around the enforcement of the anti-

trust, the food and drugs and the interstate commerce laws, to attend the hearings and to act as purveyors of information, they will be much better off than if they wait until the formal complaints come on for hearing and then expect lawyers to take up the issues with which they have much less familiarity than they ought to have.

Lawyers will be absolutely necessary when formal complaints come on for hearing or argument, but there ought to be, in the files of trade organizations, reports on every new tendency or point brought out, so that the lawyers put forward in the formal hearing shall know all about the subject.

The new Commission will add to the cost of doing business. The big corporations are required to make reports, regular and special, even as railroads are required to make them. There will be more expenses than those entailed by the food and drugs act. They will be largely useless but so long as the American people think their expensive government can confer benefit on them they will have to be borne, even if they are heavier than those caused by the so-called “unfair competition” practices.

CANNING WITHOUT SUGAR.

MARKETING specialists of the Department of Agriculture who have been following the fruit situation call attention to the fact that in almost all wholesale markets peaches for canning and preserving are very bountiful and are being sold at prices advantageous for canning in spite of the increased price of sugar. While the peach crop has been somewhat short in some sections, heavy crops from other states have been shipped in and have tended to keep prices at a figure which encourages canning. Later, after the height of the crop movement, prices for fruit have a tendency to rise. Retailers are urged to enable their customers to obtain fruit for canning at prices commensurate with the present low wholesale price.

A great many housewives are now being deterred from canning and preserving their usual supply because of the increase in the price of sugar. There is no indication, however, that the price of sugar will fall materially during the present fruit season. It is estimated, though, that with peaches at their present prices the combination of peaches and sugar necessary for preserving will not make a prohibitive total cost. Moreover, there are successful methods of canning fruit which call for much less sugar than that usually employed in this process by home preservers. The Department recommends the following method of putting up peaches and apples without any sugar for those who find their local sugar prices prohibitive for canning:

“If the price of sugar is prohibitive one may can peaches so that they will keep indefinitely by using plain water instead of syrup. The following recipe may be used:

“Remove skins from peaches by immersing in boiling water for about one minute and then dipping in cold water. Place whole peaches in glass jars or tins and fill jars with hot water. Place rubber and top in place and sterilize for 15 minutes in hot-water-bath outfits, 12 minutes in water-seal, 10 minutes at 5 pounds steam pressure or 5 minutes at 10 pounds steam pressure.

“Of course the peaches when removed from the jar will not taste so sweet as those canned in syrup. However, if sweetening is desired it may be added when the fruit is to be eaten.

“This same method is good for canning with syrups containing varying amounts of sugar. A very thin syrup may be used if the housewife does not wish to dispense entirely with the sugar.

“Apples may also be canned (for apple sauce, pie filling, etc.) using plain water instead of a sugar syrup. Department specialists have repeatedly canned them by this method. In the case of apples, jars should be sterilized 16 minutes in hot-water-bath outfits, 12 minutes in water-seal, 10 minutes under 5 pounds of steam and 4 minutes under 10 pounds of steam.”

The Department, therefore, advises housewives to consider carefully the total cost of preserving, with sugar high and fruit low, before determining to wait or not to put up their usual pantry supply.

Indiana Correspondence

(From our Staff Correspondent.)

INDIANAPOLIS, August 31.—The Federal and local food price investigations held the center of the stage in Indiana—as in other states—during the month of August and the early days of September. A corps of Federal investigators, revolving about the district attorney's office, made an exhaustive survey of the causes of higher prices in Indiana (which retailers, wholesalers and others said was due to the European war scare) and the results of the investigation went to Washington, D. C., to aid the national government in its attempted regulation of certain prices of commodities. The facts connected with these big food investigations already have been told and retold so often and the charges surrounding them have been hurled and rehurlled between consumer and producer and marketer so many days now that there is scarcely any use to repeat them. Everybody knows the conditions as regards our commodities just now throughout the country and until some Federal action is taken it is worthless to discuss a local situation, such as that which was developed here—since every local food condition had causes which are local in character and which mean but little, unless they are considered as an integral part of the conditions throughout the country. High prices were found here and low prices were found here. Exorbitant charges, made by unscrupulous dealers, who sold sugar and flour out of the same barrels at varying prices were numerous, the whole condition probably being about what existed in other parts of the country. Frank C. Dailey, the district attorney for the district of Indiana, returned from a vacation to aid in the investigation and he was assisted by Milton Mangus, a deputy; A. F. Kearney, special agent of the bureau of investigation of the Department of Justice at Washington, and Harry Kitchen, local Federal agent of the Department, who it is rumored—by the way—is to be promoted very soon to a post at Cincinnati.

A new organization, to be known as the Indiana Manufacturers of Dairy Products, was launched at meetings in Indianapolis during August. Improvement and development of all lines of the dairy industry is contemplated. All persons, firms or corporations holding state creamery licenses are eligible to membership. R. F. Miller, of Topeka, Ind., was elected president of the organization. John A. Risch, of Vincennes, is vice-president and C. W. Hale, of Indianapolis, is secretary-treasurer. Speakers at the meetings of the new organization here were: O. F. Hunziker, Purdue University; W. W. Marple, Chicago; G. L. McKay, of the American Association of Creamery Butter Manufacturers; W. E. Smith, of the Blue Valley Creamery Company, and C. R. George, of Purdue University. The first annual convention of the organization will be held here next winter. Members of the executive committee, besides the officers, are Mr. Hunziker, Bert G. Moore, of Marion; George Freese, of Nappanee; Samuel Schlosser, of Plymouth, and E. L. Martin, of Markel.

In line with the formation of this organization, Attorney General Thomas H. Honan, of Indiana, gave an opinion to Prof. Hunziker, in which he outlined what organizations necessarily must have creamery licenses. The opinion was as follows:

"In reply to your request for my opinion upon the intent and meaning of Section 6 of the Act of Mch. 15, 1913 (Acts 1913, p. 922), I beg to say that in my opinion said section requires that every creamery, shipping station, milk factory, cheese factory, or person or agent, firm, company, association or corporation, receiving, buying and paying for milk or cream on the basis of the butter fat contained therein shall be required to hold a creamery license.

"It is my opinion that all persons, firms, companies, etc., etc., who buy, receive or pay for milk or cream on the basis that it shall contain a certain per cent of butter fat, regardless of how that per cent of butter fat is determined, are required to hold a creamery license. In every case where the per cent of butter fat contained in milk or cream operates in any way to determine whether such milk or cream is received or bought, or in any way determines the price to be paid therefor, such person, firm, company, etc., so receiving, buying or paying for such cream or milk must hold a creamery license.

"This section covers all cases where milk or cream is received, bought or paid for upon the basis that it shall comply with any standard, which standard is based upon the amount of butter fat contained."

One of the unique features of the Indiana State fair, which was held in Indianapolis September 5 to 12, was a complete exposition of the work of the State's pure food and drug work. In a large tent, erected in a prominent part of the fair ground, H. E. Barnard, State food and drug commissioner, displayed every phase of the State's activities to protect buyers and handlers of food products. There were exhibits, showing the operation of the Indiana weights and measures law, the water analyses work of the State laboratories, the food and drug inspection and analyses work, the sanitary work of the department and other features of the work under the direction of the State Board of Health. Approximately 60,000 Indianians view the fair and its prominent features each year.

In the monthly report of the State's pure food and drug department, the chief cause for complaint during July was the unsanitary and lackadaisical operation of some Indiana dairies.

Twenty of the thirty-seven dairies inspected during the month were reported in poor conditions by the State inspectors, while only seven were rated good and ten as "fair." Not a single dairy visited received high grading in the department's files.

Of the 309 groceries inspected only six were rated as "excellent." Seventy-four condemnation notices were issued during the month, principally because the establishments were unsanitary or improperly constructed. Eight prosecutions were successful during the month. Twenty-three of 117 samples of milk inspected at the laboratories were declared illegal. Sixteen samples of cream and ice-cream were declared illegal because they contained visible dirt or were below standard in ingredients. Benzoate of soda was found in two samples of cider. Mr. Barnard said today that the forthcoming report for the month of August would show an unusually heavy number of successful prosecutions throughout the State. Violations of various phases of the Hoosier laws were responsible, rather than any particular phase, he said.

BUTTERINE COMPANY IN TROUBLE.

On September 4, Dennis Kelly, president of the Capital City Dairy Company, butterine manufacturers, Columbus, O., and five others of the company's officials, were indicted by a special grand jury in the federal courts at Columbus. The charge is conspiracy and fraud, by which the government claims that over \$2,000,000 internal revenue taxes have been evaded.

The plant is said to be the largest, as well as the oldest, of its kind in the United States, and has always been very prosperous. The stock, it is understood, pays over 200 per cent. Several weeks ago the plant was seized by revenue officials, following a secret investigation which had been going on for months. A civil action to recover the amount of tax claimed to have been held back, \$2,078,951.26, was then instituted. The company is now compelled to face a criminal charge. Technically the company is accused of juggling the different revenue rates as applied to different kinds of artificial butter so as to get the benefit of low rates on products that required the highest. There are also charges of illegal adulteration and coloring. The alleged frauds were discovered by tracing shipments of palm oil from New York, over a circuitous route to Columbus, and then by night haulage to the Capital City Dairy Company's plant. Conviction will mean imprisonment of from six months to three years.

FLUID OUNCE LABEL UNLAWFUL.

Attorney General Webb of California has made a recent ruling that all liquids must be labeled in terms of gallons, half gallons and pints, instead of fluid ounces. It is likely that a test case will be made to a higher court, as many products now offered to the trade are improperly labeled under this new ruling. Extracts, grape juice, pineapple juice, syrup, wines and liquors, and most all other fluid food products being labeled in the fluid ounce.

It is not likely that any retailers will be prosecuted until after the test case.

Michigan Correspondence

(From Our Staff Correspondent)

LANSING, MICH., Aug. 31.—The Michigan Dairy and Food Department was very active during the month of August. Commissioner Helme detailed seven inspectors to the city of Detroit and during the month he has been conducting a clean-up campaign in that city. Three of the inspectors were special men, brought from other sections of the state, one an expert on dairying and city milk supplies, one a special food inspector and the other the superintendent of weights and measures. These three worked in conjunction with the three regular inspectors permanently stationed in Detroit. The first woman inspector to do active work was enlisted in this campaign. She has been going about the city inspecting hotels, restaurants, candy kitchens, etc., looking especially after the sanitary conditions of these places.

Every angle of the department's work was taken up. The inspection of food supplies, the sanitary conditions of all places where food was manufactured or sold, storage houses, warehouses, etc., were looked into. The inspection of weights and measures, especially those of hucksters and others buying and selling in the public markets was carefully made and many irregularities found.

There seems to be a tendency on the part of many dealers to use the old style bottomless measures. The cubical contents of these measures are generally proper, but owing to their small diameter, such commodities as potatoes, onions, apples, etc., cannot be properly measured in them. A peck of potatoes according to the state law should weigh fifteen pounds but when one of these bottomless measures is used the consumer only gets about twelve pounds thus being cheated out of about three pounds on every peck.

After a visit of the inspectors to the Detroit public market business was at a standstill for about two hours. About seven hundred measures that did not conform to the state regulations were seized and confiscated. The peddlers and hucksters made a hurried attack on the hardware stores in an effort to get measures that would pass inspection.

All sizes of measures were among those seized, from the half-pint to the half-bushel. All bore the seal of the city sealer, but while proper for grain, they were all short for dry or heaping measure. A huge heap in the center of the street, where all the measures were dumped, furnished ample evidence of the activities of the inspectors.

"Woman food inspector on the job," is the way the newspapers heralded the appointment of Mrs. Myra C. Wheelan of Detroit as the first woman inspector in Michigan, "This has always been considered a man's job, but I believe a woman can do a great deal of good," explained Mrs. Wheelan. She will pay special attention to restaurants and bakeries, with reference to their sanitary condition.

One concern which manufactures pies was visited by the inspectors. Conditions around the plant were found to be bad. In their cooling room rows of gas pipe that are used to place the pies on were covered with dirt and grease. The flour and sugar bins were left open and open garbage cans attracted millions of flies. "There were more flies in the place than I ever saw in one place before," said one of the inspectors.

In anticipation of the war the department has had 20,000 bulletins printed on Foods and Food Values, which can be had upon application. It shows the food value of all common foods. From it the housewife can figure out a balanced ration that will keep the human engine going without paying 40 cents a pound for beefsteak. "If we will all cut out a greater part of the meat we eat, we will have better health and at the same time put a hole in the high priced meat balloon with the old gun, 'lack of demand,' that will make it come down again within reach," says Commissioner Helme in a special bulletin just issued. Education of food consumers on food value is the most available remedy at present for the high cost of living.

One food inspector of the Michigan department recently received an infernal machine through the mails. The inspector saved himself by soaking the package in water before opening it. The bomb was enclosed in a package five inches long and two inches high. It contained a quantity of high explosive powder, three big detonating caps and three matches, so arranged that the slightest friction when the cover was pulled off would explode the contents. The out-

side covering contained clippings of the inspectors' activities. It is supposed that someone convicted of disobeying the state laws sent it. Government inspectors were at once notified and are investigating the case.

The food department duplicated its performance of last year and has been running a special exhibit train over the state during the month of August. The train consisted of two baggage cars and a Pullman. One baggage car was filled with exhibits from the Dairy and Food department on fake medicines, fake cure-alls, etc., misbranded foods, deceptive labels, dairying and clean milk, tuberculosis in dairy cattle, etc., while the other car was filled with exhibits from the State Board of Health on general health topics. Five demonstrators from each department accompanied the train and explained the exhibits at each stop. The train traversed the entire upper peninsula of the state of Michigan making about fifty stops in all, the majority of them being from one-half to a whole day. It is estimated that about 75,000 people visited the train listening to the talks and viewing the exhibits. Quantities of literature on food and health topics were distributed at each stop, so that thousands of people benefited from the train besides those who visited it. This is the second train that these two departments have run and it is expected that it will be a permanent feature in the future.

"One of the worst things we have to contend with is the proper washing and sterilizing of glass milk bottles," declares Commissioner James W. Helme.

"A glass bottle which has been thoroughly washed and scalded after being used is sanitary beyond question. The main difficulty lies in getting this done. Many consumers give their bottles only a perfunctory washing. These empty bottles are often set out for the milk man in unclean environments and are subject to contagion. Typhoid fever and other diseases are often contracted from improperly sterilized bottles. Returned bottles, no matter how clean they may appear, should again be washed and sterilized on being received by the creamery or milk man."

Many times this is not done and the bottle that was in the sick room of a scarlet fever patient one day may be in a highbrow sanitary physician's house the next. The most efficient remedy for this abuse is to bottle milk in a sanitary paper package which is used but once and then thrown away. The objection to this in the past has been the expense of a give-away package. Several bottles are now on the market which furnish a sanitary package at a low cost and their use would be of great benefit to the milk consumer.

MUST SHOW WHEN MANUFACTURED.

In one of the late bulletins of information from the Bureau of Chemistry is found a statement referring to the matter of labeling food products for interstate shipment with declaration of contents. The statement says:

"The question has been frequently raised whether it will be necessary for manufacturers to show that food products shipped in interstate commerce without the weight on the label were manufactured prior to September 3, 1914.

"While this question, being purely legal, cannot be authoritatively determined by the Department of Agriculture, and must be decided eventually by the courts, the views of the department are:

"First. That the penalties of the act of fine, imprisonment, or confiscation can not be enforced for violation of the net-weight amendment in respect to domestic food products prepared, or foreign food products imported, prior to September 3, 1914.

"Second. That, if, after September 3, 1914, packages of food products not marked as required by this amendment be shipped in interstate or foreign commerce, or otherwise brought within the jurisdiction of the Food and Drugs Act, the burden will be upon the person guilty of the violation to show that the article, if domestic, was prepared, or, if foreign, was imported, prior to September 3, 1914.

"Third. Persons guilty of violations who can not make proof that the preparation in the case of domestic, or importation in the case of foreign, food products was prior to September 3, 1914, will be subject to the penalties of the Food and Drugs Act."

"APPROVED"

—So Everyone Says

A. J. DOUGLAS, M. D. Chairman
L. B. ALLYN, Chemist
L. H. BEALS

WM. M. PORTER, Agent

Westfield Board of Health

WESTFIELD, MASS., 6-30-14

Sherer-Gillett Co.,
1705 S. Clark St.,
Chicago, Ill.

Gentlemen—
This Board believes emphatically in the
two following propositions:

First of all, food must be made
pure.
Secondly, it must be kept pure.

It seems to us that the Sherer display
counters are an exceedingly valuable help
for this latter proposition.

We have observed the counters of this
type which you have installed locally, and
other places, and regard them by far the
best thing of the kind that we have as yet
seen.

Wish you continued merited success, we
beg to remain

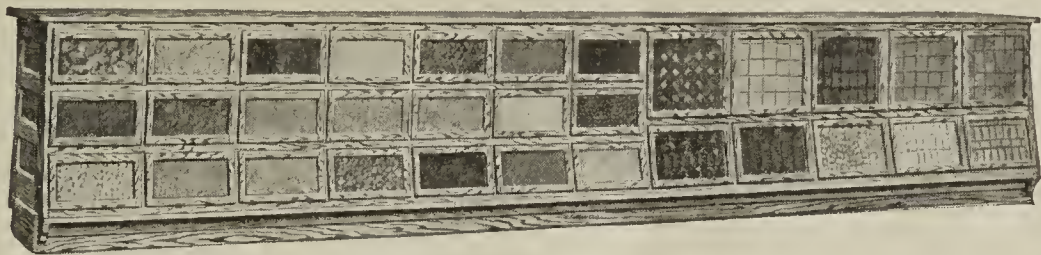
Very truly yours,
L. B. ALLYN.
J

LB-N J

Sherer Counters are commended by food control authorities generally. Many prominent officials praise them without stint.

Merchants appreciate their many economies, their excellent protection of goods and their attractive display of profitable goods.

Women customers note with pleasure the precautions taken to insure clean goods.



They are a delight to the eye, income producers and great savers of goods and time.

Information will be sent upon request to merchants or food control authorities.

Ask for Catalog F

SHERER-GILLETT CO.

1705-7-9 So. Clark Street

CHICAGO

BUY PURE COMPRESSED YEAST

The discussion about using starch in Compressed Yeast has reached the point in the United States of a decision forcing those who used it to declare the fact on the wrapper or label.

That is how we administer the Food Laws in this country.

In Austria where they do things more thoroughly, the chemists of the Royal Experiment Station of Vienna investigated the question for some years and finally reported against the use of Starch in Compressed Yeast for the reason that when mixed with Yeast "STARCH IS LIABLE DURING A CERTAIN STAGE OF THE DETERIORATION TO HIDE PUTREFACTION OF THE YEAST AND THEREBY FAVORS THE MARKETING OF PRODUCTS UNWHOLESOME AND DANGEROUS TO THE PUBLIC HEALTH."

Thereupon the Austrian Government promptly passed a law prohibiting altogether the use of starch in Yeast.

We Do Not Use Starch in Yeast

A. P. CALLAHAN & COMPANY

2407 La Salle Street

Telephone Calumet 410

CHICAGO, ILLINOIS

Minnesota Correspondence

(From Our Staff Correspondent)

ST. PAUL, August 31.—The City Health Department of St. Paul is inaugurating an accurate system for keeping tab on the dairies which send milk and cream to the city residents. Dairy Inspector F. W. James is preparing an elaborate score card system. After each inspection the Health Department will issue to the public periodically a bulletin giving a complete and detailed report of each dairy, so that their patrons may know all about the sources from which their daily supply is obtained. Cleanliness of premises, barns, milk-sheds and bottling machinery, healthiness of herds, and many other points will be considered. Mr. James believes that giving the public information of the actual standing of the dairies will compel dairymen to come up to the proper standard in order to hold their customers' patronage.

The women are taking a very active interest in the food supply situation in Minnesota, both in the metropolitan cities and the country. Mrs. J. R. Brandrup, of Mankato, chairman of the civics committee of the Minnesota Federation of Women's Clubs, conferred with Commissioner Winkjer regarding co-operation of the State Dairy and Food Department with the women's clubs in the inspection of food and milk. Mr. Winkjer promised the active co-operation of his department in so far as his limited force of inspectors would permit, and granted Mrs. Brandrup the permission to make arrangements for any community that asks for a special investigation. The department inspectors will co-operate to give official backing. The Civics Committee intends to make this its principal work during the coming year.

The Women's Welfare League have recommended to Mayor Powers of St. Paul the names of two women for food inspectors for the health department. In a conference with the mayor they asked for three things specifically:

1st—Better garbage collection and disposal service.

2nd—Better enforcement of the ordinance for the covering of fruit and other food stuffs.

3rd—A woman inspector of foods.

The Mayor explained to the women that a bond issue, which will be put before the people for approval in the fall election, will be necessary before a disposal plant can be constructed. He also informed them that an ordinance will soon be in force prohibiting merchandise on the sidewalks and then there will be less need for covering fruits.

Dr. Justus Ohage, city health officer, is not disposed to take kindly to the appointment of a woman food inspector. While he has not flatly refused to consider it, it is known that he feels that men have been more successful in that work.

The Housewives' League was addressed by Dr. F. L. Washburn, State entomologist, during the month. The substance of his remarks was that the most effective way to lower the death rate resulting from the disease-carrying fly is to educate housewives to withdraw their trade from storekeepers who allow flies in their establishments; to encourage an educational campaign in rural districts by having school children write essays on the fly; to keep the interest of State and local boards of health aroused, and to prohibit refuse piles and lack of garbage collection in cities.

"Trapping flies is only incidental and should be given only secondary consideration," said Prof. Washburn. "Doing away with the breeding places is the only way to eliminate them. If we allow no filth in our cities, we shall have no flies. There are fewer flies now than formerly, due to public sentiment of late years."

Waxed paper milk bottles are being advocated strongly, the claim being made that they are economical to the dealer, as well as a protection to the consumer. They are called mono-service bottles. One of the larger city dairies is using them for whipping cream, butter milk, and cottage cheese.

The State Dairy and Food Department has had added to its already full quota of duties the enforcement of the cigarette law. This does not seem within the category of things to be attended to by such a department, nevertheless its inspectors have already brought many prosecutions for violation of this statute which deals principally with the selling of cigarettes to minors.

The Retail Grocers' Association has protested to the police asking for the enforcement of the law prohibiting the sale of groceries on Sunday. The action seems to be aimed at the small dealer particularly, and no doubt many will rise to their support believing that the little dealer needs the odd nickels

that come his way and that they fulfill a mission to those who want emergency supplies.

"During the last two decades, Minnesota has made remarkable progress in improving the quality of her dairy products," says Prof. T. L. Haecker of the University Farm, a recognized authority on dairying. "Twenty years ago these products were not known on our great markets. Now we are receiving the highest market price for our dairy products, especially for Minnesota creamery butter. The cause of the improvement is the fact that dairy men in Minnesota are beginning to realize more and more the value of raising dairy stock for dairy purposes only. There has been a tremendous awakening during the past years to the modern methods of stock breeding and progressive dairymen are breeding herds with dairy heredity. That is to say, they are breeding dairy cattle for dairy purposes from cattle which have been producers before them."

Ordinary cows according to Prof. Haecker, produce an approximate average of one hundred twenty-five pounds a year of butter-fat. Good dairy cows should produce three hundred pounds each with proper feeding. One of the herd at the University Farm last year produced seven hundred ninety-three pounds of butter-fat without extra care or attention.

In 1890 there were in Minnesota five hundred sixty-six thousand cows, yielding on the average two thousand eight hundred pounds of milk and one hundred twenty-eight pounds of butter-fat per cow. Now there are one million, one hundred twenty-five thousand cows, averaging four thousand pounds of milk, containing one hundred fifty pounds of butter-fat, equivalent to one hundred seventy-five pounds of butter, worth at a fair valuation, twenty-seven cents per pound or forty-seven dollars, twenty-five cents per cow, which makes the total annual value of the state's dairy product alone fifty-three million dollars.

From a careful investigation we find that our common cows are capable of producing a much larger yield than is obtained from the average cow in the state. "I am inclined to believe," says Prof. Haecker, "that the farmers have not given as close study to the feeding problem as they should for two reasons. First, because many of them do not understand the terms employed by instructors, and because the information given has not been sufficiently definite and practical to command the confidence of the farmers."

"Wisconsin farmers were the first to realize the value of proper feeding and breeding of dairy stock, and as a result," says Prof. Haecker, "Wisconsin dairymen receive from eight to ten dollars more per cow each year than the average dairyman in Minnesota or other states. Minnesota producers come second in the list, exceeding those of Iowa by from five to ten dollars a year each cow."

SOUTH AMERICAN MARKETS FOR CANNED GOODS.

Although South America imports about \$15,000,000 worth of canned goods annually, the United States furnishes only about 18 per cent of the total, of which the principal item is canned salmon. That the sales of canned goods in this field can be greatly increased is the opinion of Commercial Agent E. A. Thayer, of the Department of Commerce, who recently completed an investigation of the Latin-American markets for this line of goods.

The results of this investigation are incorporated in a monograph issued by the Bureau of Foreign and Domestic Commerce. This publication treats of the consumers' preferences, sales methods, pure-food laws, credit terms, shipping costs, and other subjects in the various countries of interest to American canners. Copies of the monograph (Special Agents Series No. 87) may be obtained from the Superintendent of Documents, Washington, for five cents each.

A GOAT FARM.

A 50,000-acre goat farm, backed by a \$1,000,000 Italian cheese manufacturing corporation, with a plant for the manufacture of Italian cheese on the Willamette Pacific Railroad, between Florence and Gardiner, in Oregon, is the announcement made by Mark Woodruff, publicity agent of the Portland, Eugene & Eastern Railroad.

What the Chemist Saved One Business

A packer of food stuffs had an excessive quantity of a perfectly wholesome but inferior quality product, which at the time was unsaleable.

Co-operating with a chemist an entirely new product was developed, which has now become one of his best sellers. Two other products were also developed from the waste material.

Almost every manufacturer has some unsalable or waste material that can be developed into valuable products.

Manufacturers desiring to improve their products and lower the costs of production should consult with us.

No Charge for Preliminary Consultation

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ALL GRADES ALL SIZES

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SEATTLE, U. S. A.

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"GOOD-BYE FLY"

According to Department of Agriculture Bulletin No. 118: Apply 0.62 Borax to every 10 cubic feet of manure. Apply Borax particularly around edges; sprinkle with 2 or 3 gallons of water. This treatment should be repeated with each addition of fresh manure. Flies lay their eggs in fresh manure. Borax prevents their hatching.

Don't use more Borax than recommended above.

B. HELLER & COMPANY



THE PLANT BEHIND OUR PRODUCTS

Manufacturing Chemists

CHICAGO, U. S. A.

New York Correspondence

(From Our Staff Correspondent)

NEW YORK, August 31.—Among importers the situation due to the European war is unchanged save that the tenseness in every respect grows worse daily. Demand for goods is unabated and the chances of getting foods from points of origin are even less satisfactory than ever. Goods which were supposed to be afloat are not coming forward and of course new orders are out of the question, even if the goods were produced, the embargoes of the home governments on all food products stopping shipment. Therefore every case of goods in stock becomes more valuable daily.

Some of the notably scarce articles here are Spanish peppers, mushrooms, sardines, olive oil, lemons, French macaroni and Belgian peas. Mushrooms are dealt a severe blow in the removal of the army cavalry horses from their accustomed garrisons in France, the mushroom beds depending on certain and convenient supplies of manure which are now cut off. The result is that the better grade of mushrooms are now held at from \$4.00 to \$5.50 a case higher than normal. Sardines of foreign packing advanced fully 20 per cent within a week and olive oil went higher by 50 cents a gallon. Owing to the scarcity of sardines, quite a lot of new goods are being put on the market, principally small herrings in tomato sauce.

The extensive grain traffic to Europe which normally flows out of New York harbor has been paralyzed during the past few weeks by this transportation tie-up with something over 50,000,000 bushels of grain held up awaiting cargo space.

On August 13th, Mayor Mitchell appointed a committee to look into the causes of the rise in food prices. He stated in part: "Prices of food and other necessities have begun to rise. How much of this increase in prices is attributable to legitimately greater demands, how much is due to selfish hoarding of provisions and how much is ascribable to rapacity of unscrupulous dealers is a matter for examination. I have accordingly appointed a relief committee to advise and suggest ways and means open to the city to relieve the distress of those temporarily unemployed citizens with due regard for their self-respect; to ascertain whether the raising of prices of necessities is natural or forced, and whether an extension of the market functions of the city can help to keep prices at a reasonable level and to make such other recommendations and suggestions as in its judgment may be of service to the city authorities in grappling with the emergency."

"I have instructed the commissioners of health, police, charities, and weights and measures to give their most active co-operation to the committee and to exhaust every agency of their respective departments in aid of this work."

The committee has found it impossible to obtain live stock from the vicinity of this city because the railroads give preference to through shipments of western stock.

Mr. George W. Perkins, chairman of the committee, said that this committee would advocate possibly the establishment of a municipal slaughter house, market and dairy. The committee has decided to establish public wholesale markets in Manhattan and the Bronx on September 1st.

Prices have been reduced on many foodstuffs as a result of the investigations, but speculators have begun to get busy; 500,000 pounds of sugar were found stored in a single store on Ludlow street, and the owner was not anxious to sell any great quantity even at \$7.50 a hundred wholesale.

During the period between July 18th and August 18th, there were received in New York 209,000 fewer cattle than during the same period last year, 208,000 fewer sheep and lambs, and 507,000 fewer hogs.

Vegetables, fish and poultry are being sold without advances in prices and are plentiful. Native beef has dropped from ½ to 1 cent and can be purchased at 14½ cents wholesale. Flour and sugar still remain high; in fact, wholesalers have been reported as buying back sugar from the retailers.

Commissioner of Weights and Measures Hartigan is endeavoring to find the whereabouts of an immense quantity of Argentine and New Zealand beef and mutton which was imported duty free into New York about three months ago and soon disappeared from the market. It is believed this meat is in cold storage held for higher prices. Twenty-eight carloads, containing 34,000 chickens, are being held in New Jersey by agents of the shippers in the hope of a rising mar-

ket. Mrs. Julian Heath, president of the National Housewives' League, has urged an embargo on exports of foods. Several small lots of foreign butter arrived in August from Denmark, Siberia and Holland.

Shie Landau, Herman Landau, Abraham Lipman and George Lipman, formerly in the grocery business at 303 E. 103d street, were indicted by the federal grand jury on a charge of concealing assets from the receiver of their bankrupt firm. According to the charge they concealed enough groceries to stock a jobber.

The attempt of foreign manufacturers of fancy wafers and biscuits to secure free entry under the new tariff for their products has not met with complete success in a test case just decided by the Board of U. S. General Appraisers at New York. Thomas Meadows & Co. appear in the case as the importers, while the merchandise represents various products of Huntley and Palmer, English wafer makers. All of the goods in the controversy were assessed at the rate of 25 per cent ad valorem under paragraph 194 as containing chocolate fruit nuts or confectionery without regard to the component material of chief value. The importers claimed that the goods fall within paragraph 417 of the free list which reads: "Biscuits, bread and wafers, not specially provided for." Judge Waite, who wrote the decision for the board, holds that the wafers made with a layer of sweetening are properly dutiable as assessed, while certain cookies or cakes surfaced or coated with confectionery are held to be entitled to free entry.

FRUIT JELLY MUST "JELL."

Real fruit jelly must "jell" because of the fruit juice in it and not because gelatin has been added to it, according to a recent government opinion under the Food and Drugs Act. This ruling states that a product thickened by gelatin can not properly be labeled as fruit jelly but must indicate by its name its true character. The official definition of jelly on which this opinion is based is "Jelly is the sound, semisolid, gelatinous product made by boiling clean, sound, properly matured and prepared fresh fruit with water, concentrating the expressed and strained juice, to which sugar (sucrose) is added, and conforms in name to the fruit used in its preparation."

Marmalade is harder to define and government experts are now investigating the subject with a view to determining proper standards for products of this character. The proportions originally laid down were 45 pounds of fruit to 55 pounds of sugar. It was found impracticable, however, to make a satisfactory product that would conform absolutely to this requirement and the question is being studied further. In the meantime no action will be taken by the Government against marmalade that is made from clean, properly matured and prepared fresh fruit and sugar, even if the proportions vary somewhat from the standard already stated.

The Department has also decided that all fruit juices to which alcohol has been added must be plainly labeled to show this if they are to be shipped in interstate commerce after September 1, 1914. In the opinion of the Department, such names as "Peach Juice," "Cherry Juice" should be applied only to fruit juices which are unfermented and which contain no added sugar, alcohol, or other substances. In the past alcohol has been frequently added as a preservative to these preparations which are used for such purposes as flavoring beverages or preparing cordials. After September 1, however, goods that do not comply with the new ruling and indicate this fact on their labels will be denied entry into this country and if found in interstate commerce will be subjected to appropriate action by the authorities.

A third ruling insists upon a clear statement of the fact on the label whenever salts are added to a natural water. The quantity of salts need not be stated but it must be made quite plain that the water has been artificially treated.

The American Bottlers' Association will hold its annual convention in Louisville, Ky., October 13-15. A large amount of business of special importance to the members of the organization is scheduled to come up for discussion.

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Carnation Milk is superior to raw milk.
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CARNATION MILK

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Carnation Milk is safe milk—nothing is taken out but part of the water and nothing is added. In sterilizing it is heated to a higher degree than ordinary pasteurization heat. It comes to you hermetically sealed against contamination.

Try Carnation Milk today—also ask your grocer, the Carnation Milkman, for "The Story of Carnation Quality"—with choice recipes, or write us for it.

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Ohio Correspondence

(From Our Staff Correspondent)

COLUMBUS, O., August 31.—Whether destined for the swell cuisine of the Waldorf-Astoria, or to be hurriedly eaten out of the tin by the European soldier between battles, the Ohio food department is determined that canned goods produced in the state this season shall have a high standard of wholesomeness. To this end the inspection force is exercising the utmost vigilance in holding manufacturers to the excellent sanitary code put into force in 1913.

Chief canning inspector, L. C. Bingham, and chief of food division, H. S. Bartlow, made a special tour the last week in August of the principal corn canning plants in southern Ohio. They found conditions quite satisfactory, though their trip included localities that had given some trouble last year. The washing of the cans before use and the washing of the vegetable, now required by law, are precautions which it would seem are being accepted in good part by canners. At first there was considerable bad feeling over these requirements. The weakest point observed in the operation of the code was perhaps the cleaning up of the plant after the day's work. With a majority of concerns it has become a matter of pride, no less than of duty, to put everything in the best sanitary state from day to day. The negligence of the few is now being corrected.

As showing the importance which the department attaches to sanitary canning, Commissioner Strode and Mr. Bartlow will visit the big plants in the northern part of the state devoted to fruit. The season will then be at its height. This careful inspection system has in mind the growing importance of the canning industry in Ohio, and its future source of wealth both to the manufacturer and the fruit and vegetable grower. In volume of output the state now ranks well up toward the top, and it is desired that along with the increase of production shall come the highest grading possible. The department's annual report for 1913 showed Ohio to have 151 canning factories. A number of new ones have come into existence since that date.

Better butter is being industriously urged upon Ohio farmers by H. S. Mesloh, chief of the dairy bureau. One of the intelligent means he is using is a folder lately from the press, "Factor Every Farmer Should Know." One of the vital points made is that the grocery store is not the proper market. The grocer, in fact, does not want the farmer's butter, but takes it to hold favor with his butter-making customers. As a rule he loses money on it, because he lacks the facilities for handling the same. It leaves him a second-grade article, no matter how good the quality was originally. With the product of different farm houses jumbled together, and the whole more or less contaminated by surroundings in the store, he has a mass of grease which goes to the renovating plant. There it is rechurned and placed in direct competition with good butter.

The grocer, therefore, has no enthusiasm in the matter of butter, and as a consequence local prices suffer. The folder contains some pictures taken from actual life which show the manner in which butter in grocery stores is exposed to dust and dirt, not to mention rats and mice. Butter makers are advised to select their own private market and make their produce according to the demand of that market. In lieu of this the cream should be sold in a sweet state, if possible. Dairy butter, it is stated, commands a better price over country ordinary butter because it is made under one set of conditions and for a select trade. Good butter intelligently marketed is shown to be a profitable farm product.

It is interesting to know that Ohio ranks fourth among the butter-making states. For the year 1913 she produced 81,060,383 pounds. The importance of the dairy business is increasing by leaps and bounds. It is also undergoing a change geographically with respect to the dairy products peculiar to different products. The Western Reserve, in the northeastern part of the state, which has been so long known as a great cheese-making center, is losing her prestige in quantity of output. The cause is due to the fact that Cleveland and Pittsburg are drawing so heavily upon the district for milk and cream supply. Prices for these staples have been forced up to a point where they are more profitable than the cheese industry.

During the past few weeks there have been sensational developments in Cincinnati as a result of secret investigations by Drug Inspector Hower and his force of assistants. A

woman who was familiar with the illegal traffic in narcotics through actual contact with it furnished the inspectors valuable tips. A member of the city council and seventeen physicians and druggists were caught in the net and all placed under arrest. In the case of one of the physicians, an inspector went to his office and impersonated a dope fiend, whereupon he was promptly given a prescription. A physician and druggist agreed for the price of \$10 to send a quantity of opiates to a certain hotel in Columbus. The goods were delivered by mail in a magazine which had been hollowed out. In a raid on an opium den the wife of a prominent business man and her seven-year-old daughter were found under the influence of the drug.

Work will be continued here until Cincinnati has been given the same cleaning-up as other Ohio cities have had. The state appropriation for this branch of the dairy and food inspection service is so small in comparison with the needs that progress is slow in bringing the whole state under control. It is expected that the new anti-opium bill passed by Congress will be a great aid. The inspector states that within another year he hopes to make it impossible to buy opium or its derivatives for other than medical purposes anywhere in Ohio.

Prosecution on all classes of violations will be pushed now that the courts are resuming work. The state-wide campaign which has educated egg-producers on their duty to the public has paved the way for the use of the "mailed fist" on future offenders. Some arrests have already been made. They will serve as object lessons to show farmers and produce men that the department means business.

An "Egg Catechism," bearing publication date of August, 1914, and compiled by Septimus Mawer, chief food inspector, consists of 63 questions and answers of practical value to egg producers. They cover points relative to care and feeding of hens, safeguards against allowing eggs to become unfit for market, and suggestions as to the manner in which producers can realize better prices. The best class of consumers, it explains, are willing to pay an extra price for eggs that are clean looking, of good size and known to be fresh. These facts are well known to the producer who gives his whole attention to eggs, but the output of poultry men is small compared with the total volume that it made up from small producers, such as the general farmer. The latter is too apt to follow established custom, which proceeds upon the theory that so long as the shell is intact an egg is an egg, and that the size and quality are not taken into account by dealers and consumers. Mr. Mawer states that the department is in receipt of many inquiries from commission merchants, grocers, and co-operative associations in the larger cities asking for the names of farmers and poultrymen who are producing infertile eggs.

Another August document is a 50-page booklet issued by the weights and measures department of the service. The revised regulations covering boxes and crates in the marketing of fruits and vegetables are of special interest at this period of the year. A receptacle to hold a heaping bushel must conform to the dimensions of 12 by 14 by 16 inches or a space equal to same, amounting to 2,688 cubic inches, and the error on one side must not vary over one-eighth inch. In other words a bushel crate for apples, pears, plums, peaches and other fruits not secondarily contained in quart or other boxes within such crate, shall have an interior capacity of one bushel, heaped measure, which is construed to be 40 quarts. The same is applicable to fruits, vegetables and other dry commodities customarily sold by heaped measure. But in all cases where the weight per bushel or fractional part thereof is established by law the full net weight shall be required.

At the State Fair, which is in progress at this writing the Ohio food department is giving a splendid account of itself by a number of booths filled with exhibits. Demonstrations are constantly in progress, showing the public how to protect itself against impure foods and beverages or those rendered unhealthful when sold without proper precautions against contamination. Aside from its educational value, this is one of the most attractive features of the fair and is surrounded by crowds of visitors. The week at Columbus is bringing the work of the department to the attention of over 100,000 people, and a large quantity of literature is being handed out.

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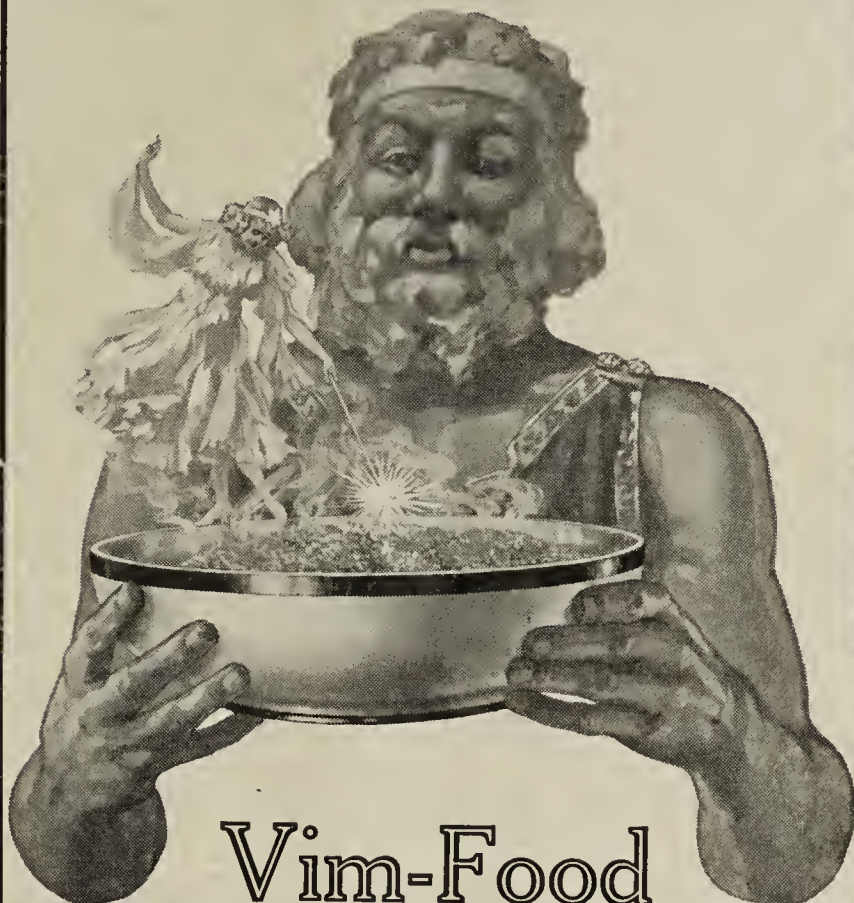
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Pennsylvania Correspondence

(From Our Staff Correspondent)

HARRISBURG, PA., Aug. 29.—Seventy-one cold storage warehouses of Pennsylvania have renewed their licenses at the office of the State Dairy and Food Commissioner and it is considered at the capitol that the first year of the act for the regulation of the business has been successful, although the constitutionality of the law is still in the hands of the courts to determine. The number of licenses issued is a few less than the total for the first year, but this is attributed to the fact that a couple of the smaller establishments went out of the business, not being well located or finding that they had troubles with their customers.

State officials connected with the licensing and supervision of the cold storage plants assert that there has been no trouble with the cold storage companies or their managers, but the sole difficulties have been with the owners of foods and with the small merchants. In a number of cases food owners failed to live up to what the law demanded and some prosecutions were necessary to get them into line. The retailer was the chief offender, failure to placard cold storage foods as such being followed by arrest in over one hundred and fifty cases in the eastern part of the state. Many of the retailers with whom food agents have talked seem to fear that such a placard will drive away business when as a matter of fact such a notice is a guarantee of the merchant's honesty.

The October 1 report on the contents of the cold storage warehouses is being awaited with much interest owing to the belief that much of the butter which was ordinarily stored in this state is now believed to have been stored in other states. The amount of butter in storage on July 1 was half of what it was a year ago. The report for October will show what is in storage and at the same time the state will be in possession of the findings on the second inspection of sanitary conditions in the plants.

Within a month inspection of the various types of cold storage plants will be made by a legislative committee which has been charged with the duty of recommending to the legislature meeting next January such changes as may be deemed necessary in the cold storage law. The chief complaints have been on the time limits for various foods, it being contended that the efficiency of the modern plants would permit of longer periods than provided by the lawmakers last year. The dairy and food commissioner also desires to have the commission clarify some of the provisions of the law and to enact sections which will do away with places where gaps occur, due, probably, to the haste with which the present act was drawn up after a dozen or more bills had been considered.

Strict enforcement of the state laws governing the employment of women and miners is under way among the canneries of the state and warnings to the managers of such establishments have been given by various departments. This is a remarkably good fruit year in Pennsylvania and some of the canneries are expecting big orders because of possible demand for export, especially to Europe.

A list of the canneries of the state has been compiled for public information by the State Zoologist's office and copies will be sent on request. The list is complete as far as the counties of Adams, Cumberland, Bucks, Delaware, York, Montgomery and Lancaster in the eastern section; in the Lycoming, Union and Luzerne in the center; Bradford in the north, Allegheny, Beaver and Greene in the west and Erie in the northwestern grape district. It is the first to be compiled.

More violations of the state laws establishing standards of butter fats for ice cream have been unearthed in the last month than in the previous six months and arrests have been made at a lively rate in the populous counties. In many cases it has been found that makers were buying cream not up to the requirements of the law and that flavors which did not own fruit ancestry were being employed. The state authorities have been working to secure agreements with organizations to keep up standards and to improve sanitary conditions.

Large quantities of Pennsylvania wheat are being held by owners for higher prices during the winter and as the yield is estimated to be somewhere around 24,000,000 bushels there

will be a lot of money put into pockets of farmers or elevators. The wheat harvest was ended before the period of destructive storms began and it escaped what has befallen the corn.

Publications defining the attitude of the state in regard to the pure vinegar and bleached flour laws are being issued by the dairy and food commissioner. The vinegar case is now on its way to the higher courts and for general information of the trade the proceedings in the lower court are to be published.

Chief James Sweeney, of the state Bureau of Standards, reports that there has been less criticism of the schedule of tolerances than expected. The list was made up after consultation with national officials and men interested in the wholesale trade and based on experience. On milk, for instance, it was made to accord with New York, New Jersey and Massachusetts.

WHAT MAKES MILK AND BUTTER YELLOW?

That the rich yellow color demanded by the public in dairy products is primarily due to the character of the cow's feed is demonstrated by recent experiments carried on by the U. S. Department of Agriculture in co-operation with the Missouri State Experiment Station. For some years dairy experts have been studying this question. Their conclusion is that, although to some extent a breed characteristic, the intensity of this yellow color may, within certain limits, be increased or diminished at will by changing the animal's rations.

Chemical tests show that the yellow pigment in milk consists of several well-known pigments found in green plants. Of these the principal one is carotin, so called because it constitutes a large part of the coloring matter of carrots. The other yellow pigments in the milk are known as xanthophylls. These are found in a number of plants including grass but are especially abundant in yellow autumn leaves.

These pigments pass directly from the feed into the milk. This explains the well-known fact that fresh green grass and carrots increase the yellowness of butter, the only standard by which the average person judges its richness. On the other hand, a large proportion of these pigments is deposited in the body fat and elsewhere in the cow. When the ration is changed to one containing fewer carotin and xanthophyll constituents, this hoarded store is gradually drawn upon and in consequence the yellowness of the milk does not diminish so rapidly as it otherwise would. This yellowness increases, however, the instant the necessary plant pigments are restored to the ration.

Green grass is probably richer in carotin than any other dairy feed. Cows fed on it will therefore produce the highest colored butter. Green corn, in which xanthophylls constitute the chief pigment, will also produce a highly colored product. On the other hand a ration of bleached clover, hay and yellow corn is practically devoid of yellow pigments and the milk from cows fed upon it will gradually lose its color. It is, of course, indisputably true that the breed does influence the color of the milk fat; but vary the ration and there will be a corresponding variation in the color of the milk fat in each breed.

In cows of the Jersey and Guernsey breeds the body fat is frequently of such a deep yellow color that some butchers and consumers look with disfavor upon beef from these breeds. For this prejudice there is absolutely no justification. The yellowness of the fat springs from the same causes as the yellowness of the milk fat and there is no reason for objecting in one case to the very thing that is prized in the other.

Rice in paying quantities is now being raised in the Southern Tulare County, California. A. Wason states that although the rice was up to the present only an experiment, the results have proved to be so satisfactory that the owners of the property contemplate setting out an extensive planting. From fourteen acres 325 sacks were harvested, a yield which is considerably greater than the average yield given in the United States agricultural year book.



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Utah Correspondence

(From Our Staff Correspondent)

SALT LAKE CITY, Aug. 27.—Utah has been selected by albumen-using baking powder companies as the center of their next fight for overturning of rulings unfavorable to such baking powder. T. J. Bryan, chief chemist of the Calumet Baking Powder Company of Chicago, arrived in Salt Lake last week and immediately took steps to convince the state food officials that this state's ruling against albumen powder and the "water glass test" is illegal and that his power should be admitted. While Mr. Bryan says he represents only his own company he admits that the other albumen companies are interested keenly and that if he attains his ends it will be a victory for all the others.

The methods to be used in the fight here will be similar to those adopted in Idaho, judging by statements given to the press by Mr. Bryan. In the event that arguments with the food officials and demonstrations of the alleged value of the dried egg in the powders fail to convince, the Calumet people will at once introduce their product on the Utah market. Then, if the state authorities seize the powder under the state dairy and food bureau ruling, an injunction will be sought in the federal court, the same as was done in Idaho in the case of the Crescent Baking Powder Company against James H. Wallis.

It is the belief of all in touch with the situation that such an injunction will be sought for as Bryan plainly threatened such action and the position of the state food officials is as firm as ever. Willard Hansen, state dairy and food commissioner; all his deputies, and every member, except one, of the state dairy and food bureau still hold that albumen in baking powder cannot be beneficial and since the "water-glass test" is generally used, being made possible by the dried whites of egg, the use of albumen constitutes a fraud. In spite of Bryan's demonstrations and assertions that the small amount of albumen is really beneficial, Herman Harms, state chemist, stoutly maintains that the albumen helps not at all the powder's leavening power.

As outlined by Mr. Bryan, the baking powder companies will take the stand that the Utah state dairy and food bureau is usurping legislative powers in making such a ruling and that even were the ruling a state law, it would be unconstitutional. The imminent fight is attracting much attention and representatives of the non-albumen powder companies are in Utah to keep in close touch with developments. James H. Wallis, state dairy, food, drug and sanitary inspector of Idaho, has also visited Salt Lake since the arrival of Bryan and conferred both with Bryan and Commissioner Hansen.

It is generally understood that Salt Lake City will be one of the six cities of the United States where special grand jury investigations will be held this fall by the government to return criminal indictments against alleged manipulators in the prices of foodstuffs. Following the sharp increase in the prices of various foods at the opening of the war in Europe and the attorney-general's order for a complete investigation, W. W. Ray, local United States district attorney and Leon Bone, special agent of the federal department of justice, have quietly carried on a searching investigation into the food situation, notably sugar and butter.

Sugar was selling for about \$6 a hundred pounds before the war broke out and without apparent cause it immediately leaped as high as \$7.85 within less than a week. This was the wholesale quotation on beet sugar, a large portion of the country's supply being manufactured in Utah and Idaho by the Utah-Idaho Sugar Company. While no announcement has been made by the government investigators as to their findings, it is understood that they have uncovered a selling pool, composed of a number of Utah financiers, who are alleged to have bought up all the sugar at the outbreak of European trouble and then arbitrarily raised the price. The Utah creamery butter manufacturers also increased the wholesale price of butter from 25 to 33 cents a pound so that it is retailing for 40 cents. As the federal officials say they can "see no reason for such an increase," and in view of the fact that the intermountain dairy and food officials at their last conference here asked for an investigation of the so-called "intermountain states butter trust," the federal officials also intend to probe this increase.

A new and interesting industry—the making of cheese from goat milk—was discovered early in the month by the state

dairy and food officials in their search for violators of the dairy sanitary laws. Although two of these establishments had been operating for several months, the state officials did not know of them as they were located in wild, mountain retreats near Bingham, Utah, about eighteen miles from Salt Lake City. Their attention was called through reports from persons in the vicinity who declared that insanitary conditions existed at the cheese factories.

It has since been learned that there are about six of these establishments, all operated by Greeks or Cretans. While the



GOAT RANCH IN UTAH MOUNTAINS. TENT IS CHEESE FACTORY.

insanitary conditions complained of were found to exist, the officials were lenient as the foreigners seemed to know no better and supplied only the Greek trade. Then, too, they were perfectly willing, when shown how, to make the proper sanitary changes. The interesting feature to Commissioner Hansen, who is a veteran cheesemaker, was the primitive methods used. The cheese is made by taking the milk from stomachs of freshly killed kids and by placing it into the goat milk, creating a curd. Mr. Hansen says that no improvement is shown in the methods that have been used in the hills of Crete for centuries. The goats have been ob-



MILKING THREE GOATS IN ONE PAIL.

tained at a small price from Mexico and the large foreign population in the various mining camps is supplied with cheese at a much lower cost than for other cheese. The food commissioner and his deputies believe that with proper regulations, the industry should be fostered and they predict that thousands more of the goats will be added to the several thousand that now browse over the valueless hills near the mining camps.

During the last week, Commissioner Hansen and his flour mill deputies, in making a careful examination of the flour mills of the state, have found many of the destructive Med-



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iterranean moths. Stringent measures have been adopted to check this pest as it is feared it will increase so as to become as damaging as the alfalfa weevil which infests Utah and Idaho. Various sorts of fumigation have been tried by the millers but without success and they are now adopting a plan of heating their plants to such a temperature that the moths, eggs and flies are killed. This has been found to be a feasible method. James H. Wallis, food inspector of Idaho, has also found these moths in Idaho mills and has indorsed the heating method of getting rid of them.

With the going into effect this month of the federal net-weight law, large potato shippers in Utah and Idaho are afraid that the law will work a hardship on them if the gov-



BAGS OF FINISHED GOAT CHEESE.

ernment insists that sacks of potatoes be branded with the net weight. They declare, in protest to the state food bureau, that the marking of a large number of sacks would entail a hardship on them as with the varying sizes of potatoes, it would be almost impossible to pack the sacks to correspond. It is thought that this and many other weights and measures questions will be threshed out when the Western States Association of Weights and Measures Officials is organized in September. Representatives of all the western states—California, Washington, Oregon, Montana, Idaho, Wyoming, Utah, Nevada, Colorado and possibly New Mexico—will gather in Salt Lake City to perfect a permanent organization so that the needs of the west may be better emphasized at the national conventions and that weights and measures problems, peculiar to this section, may be discussed by all concerned. Weights and measures sealers of all cities interested will also be admitted to membership.

The various tomato canneries of the state have just begun the work of canning Utah's large and excellent tomato crop, said to be the biggest and best crop ever raised here. The state has employed a large number of extra inspectors to watch the factories closely and score the conditions by the new cannery score card, which is to be used for the first time. Commissioner Hansen says the tomatoes are unusually clean and free from rot and that the canned products should be excellent.

SUGAR PRODUCTION IN EUROPE'S WAR ZONE.

IN view of the country-wide discussion we are having regarding the supply of sugar in the United States and soaring prices on the commodity, it is interesting to know something about sugar production in those countries of Europe now at war with each other.

It is generally known that the United States raises but a comparatively small proportion of the sugar our ninety millions of people consume. We import in considerable quantities from Cuba, and the Philippine Islands and Hawaii supply us with large amounts. All of these sources are inadequate to our demands, however, and we still find it necessary to draw upon Europe for about half the sugar we Americans eat.

The list below includes virtually all of our foreign-supply territory. This information comes from one of the largest sugar dealing firms in the United States:

France.—Production 1913-14, 800,000 tons sugar. Sowings

1914-15, 205,000 hectares (one hectare is 2.47 acres). Almost all sugar is produced in the departments lying between the Belgium frontier and Paris. Several of the largest producers border on Belgium. Little sugar is produced on the Franco-German border.

Belgium.—Production 1913-14, 230,000 tons sugar. Sowings 1914-15, 54,000 hectares. Liege province is the second largest sugar producer in the country, growing about one-quarter of the crop. Brabant province, containing Brussels, is the next largest, being a slightly smaller producer than Liege. About one-third of the crop is produced in Hainaut, south of Brussels on the French border. Namur and the other provinces produce but little sugar.

Holland.—Production 1913-14, 230,000 tons sugar. Sowings 1914-15, 60,000 hectares. North Brabant, which stretches along most of the Belgium border, contains sixteen of the twenty-eight factories of Holland. Limburg contains none, and there are but four other factories near the German border.

Germany.—Production 1913-14, 2,738,000 tons sugar. Sowings 1914-15, 550,000 hectares. Alsace-Lorraine and Baden produce little sugar, but Rheinland, which borders on Belgium, has about 18,000 hectares in beets this year, and last year produced 86,792 tons sugar.

The four districts of Prussia bordering on Russia are large producers of sugar. The sowings in east and west Prussia totaled 35,165 hectares, in Posen 68,803 hectares, and in Silesia 80,828 hectares, a total of 184,796 hectares, or about a third of the German crop, thus borders Russia. Each fall it is customary to bring large numbers of Russians into these districts to work in the beets. West of Posen is Brandenburg, containing Berlin, where 23,360 hectares were planted this year.

The other districts producing large quantities of sugar are Pomerania and Mecklenburg, on the Baltic sea, the Province of Saxony (in which is Magdeburg, growing 124,124 hectares) and Hanover, Brunswick and Anhalt. All these are in the center of the country. The Kingdom of Saxony and other states and provinces of the empire produce small amounts.

Russia.—Production 1913-14, 1,750,000 tons sugar. Sowings 1914-15, 840,000 hectares. The sowings in Poland constitute about a tenth of these, those in Podolia and Volhynie, on the Galician (Austrian) border, about a fourth, and Kief, adjoining these latter in land, one-fourth.

Austria.—Production 1913-14, 1,710,000 tons. Sowings 1914-15, 400,000 hectares. Little sugar is produced near the Russian border. Galicia contains two factories and Bukowina three. Hungary, further south, contains thirty-two factories. Bosnia and Salvonia each contain one factory. The other 188 factories are located mostly in Bohemia and other western sections bordering Germany.

PRESERVING EGGS FOR WINTER USE.

Eggs preserved in a water-glass solution will keep almost perfectly for several months. They will poach nearly as well as fresh eggs although the taste is a trifle more flat after long storage. These are the conclusions of the Missouri College of Agriculture after a careful investigation of various methods of storing eggs for winter use.

Water-glass is purchased in liquid form. Druggists commonly retail it at twenty-five cents a quart, and one quart is enough to preserve twenty dozens of eggs. For this number a five-gallon stone or earthenware crock is the most satisfactory receptacle. Heat ten quarts of water to the boiling point and allow it to cool. Then pour the water into the crock, add one quart of water-glass and mix the two. The solution is then ready for the eggs. Place the eggs in the water-glass solution each day as soon as they are laid. Use only naturally clean, not washed, fresh eggs. When the crock is filled to within two inches of the top of the solution, cover and store in a cool dry place until winter. It is of the greatest importance that the eggs used should be absolutely fresh. Water-glass will not make bad eggs good, but will keep good eggs from becoming bad.—C. A. Webster, Missouri Agriculture Experiment Station.

HOME EXPOSITION TO BE HELD.

It is announced that a Home Exposition will be held in the Coliseum, Chicago, beginning September 16 and continuing ten days. The exposition will be made up of exhibits from manufacturers who make products used in the home. Arrangements have been made for a very complete pure food exhibit, and the managers have decided to set aside one day for the wholesale and retail grocers.

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OCTOBER, 1914.

Number 10.

Right Stand in Regard to Substitutes

THERE are a good many food products which are popularly considered as adulterated when other products are mixed with them. In the sight of the food laws, however, it is permissible to use an ingredient not natural to a particular product, provided its use is stated on the label. In spite of this permission, however, some drastic food control officials are inclined to consider any product adulterated which is in any other than its natural state when such natural state is possible.

An example of this is found in coffee with which has been mixed a certain portion of chicory. In view of the above fact it is refreshing to note the attitude which Mr. Lucius P. Brown, pure food and drug inspection commissioner of Tennessee, takes on this subject. In a bulletin from his department just issued Mr. Brown expresses himself as follows on "Coffee, Chicory and Restaurants:"

Everybody knows what coffee is, and knows that it can be bought in the market in several forms. To begin with, there is the green coffee which our mothers used to handle. Then there is the roasted coffee which housewives now mostly use, then comes the roasted and ground coffee, an entirely different proposition, and a package of a certain size of which in some parts of the country is almost legal tender for 25 cents. But most people do not know what chicory is. They may know the common or garden variety used as a salad; very few of them know of the use of the root of the so-called "large rooted" variety as an addition to coffee. The root of this plant, when used for this purpose, is kiln-dried, sliced, roasted and then ground, and when thus prepared, it strongly resembles in appearance, and fairly well in smell and taste, roasted coffee, so that a considerable proportion of it can be used, when it is desired to cheat in coffee. It imparts likewise a flavor which many people like. In certain grades of coffee it is thus used for flavoring. As a matter of fact there can be no reasonable objection to the use of chicory with coffee, but when so used, the consumer ought to be notified, as he is entitled to know what he is getting for his money. Even if he preferred to use all chicory, letting coffee alone, there would be no particular damage done, because it is a harmless herb. The grocer, therefore, should mark his goods properly when they are sold to the housewife. It follows that the sale of the drink itself when prepared from a mixture of coffee and chicory, and sold in restaurants and hotels,

ought likewise to be safeguarded, and so the proprietors of hotels and restaurants in the state, when they use a mixture of coffee and chicory for making the coffee which they serve their guests, are required to place in their dining-room a sign with the statement—"Coffee and Chicory sold here," or its equivalent.

This need not be regarded by the consumer as a lower grade material. As a matter of fact, the addition of chicory may, and probably actually does, help the taste of certain grades of coffee which are "off" in flavor.

It is unfortunate that the word substitute has fallen into such considerable disrepute as is now the case, for the ordinary meaning of the word substitute in the mind of the casual reader suggests inferiority. This is especially true when used in connection with food products. For instance, the individual who would speak of chicory being a substitute for coffee, on the other hand, would not speak of coffee as being a substitute for chicory. The reason for this condition is, of course, that in the food world usually the substitution of one product for another is made in order to reduce the price of a given product; that is, a cheaper article was substituted for a dearer article. What is really at the root of the whole trouble is that in the past, when such substitution was made, in too many cases the fact was concealed and the advantage from the substitution was all taken by the party who made it and none or very little of it passed on to the consumer.

This in the early days of oleomargarine production is what has caused the greatest amount of trouble for the manufacturers of the various perfectly clean and wholesome butter substitutes today. When oleomargarine was first manufactured to a very large extent it was made to masquerade as butter, for the purpose not only of evading the public prejudice which might have existed but also to sell it at a price close to that which would be received for butter. Manufacturers of margarines now recognize the injury that was thus done to the product and under which it still labors in spite of the fact that oleomargarine to-

day is sold on its merits, at a right price, and is universally recognized as a clean and wholesome product.

The same statements which we have made might apply to other food products, but these are sufficient to illustrate our point, namely, that a substitute is not necessarily an inferior or unwholesome product or even a cheaper one. In fact it is quite conceivable that what at one time might be considered a substitute can be made to very largely replace the original product which enjoyed the advantage when the so-called substitute entered the field for recognition.

We agree heartily with Mr. Brown, however, in his contention that products such as chicory or any other in a similar position should be truthfully labeled and sold on its merits. This is not only the best policy from a legal or ethical standpoint but is distinctly the most profitable, in the long run, in dollars and cents.

A WORD TO INSPECTORS.

SANITATION is the watchword in food circles today, and the inspector is the "Man of the Hour."

All of the leading food commissions are now, and have been for some time past, giving special prominence to inspection work with the object of assuring that foods are properly handled and cared for on their journey from producer to consumer.

Grocery stores and markets are in many cities, large and small, undergoing a system of grading and classification by inspection forces. All of this is effort in the right direction and is welcomed by honest, up-to-date dealers and has a distinct tendency to eliminate the undesirable, unclean and insanitary elements from food trade.

When a store is given a high grading its proprietor is, of course, commensurately gratified, and is justified in using the fact as a feature of his advertising to the public. Because of the too frequent tendency of reform to go to unnecessary extremes a word of warning to inspectors will not be amiss. They should be careful not to allow their zeal to make them over-exacting and allow their demands in a "clean up" campaign to overreach the bounds of necessity in order to insure cleanliness. Ultra requirements which may be desirable from an ethical standpoint, but are not necessary to insure thorough sanitation, often add materially to the cost of operation of a store, and such costs, of course, ultimately become a tax on the goods, which must eventually be paid by the consumer.

We have without doubt entered upon a new era of high food prices and they will be sufficiently burdensome upon all classes without adding one iota of unnecessary expense.

In the matter of seizure and condemnation of foods also, it is to be hoped that inspectors and food control officials will exercise their sanest judgment and cause no hardship that can be avoided to be brought upon distributors of food and food products which are wholesome, but possibly not up to the standard which some official may have created for his individual self.

The world will have need for every pound of clean, wholesome food that can be produced, and it will be nothing short of criminal to aid in or permit the destruction of any product palatable and nourishing which is not actually injurious to the health of the human being.

A large responsibility rests in the hands of the food inspectors of the United States, and the existing situation calls for a high order of judgment and intelligence.

FOREIGN FOOD IN COMMON USE.

THE EUROPEAN war seems to have settled down into what is destined to be a rather prolonged conflict and consumers as well as food manufacturers and distributors of the United States are taking stock to determine what effect it has had, or will be likely to have, on our food supply in this country. It is probable that all of us eat, in some form or other, almost every day, foods which are imported.

We never stop to think where they originated as there has never been any difficulty in securing them at any corner grocery. Some of the more common food products which come almost exclusively from foreign countries, many of them from nations now at war, are spices like pepper and cloves; cream of tartar, raw material for which comes from France and Germany principally; mushrooms and French vegetables, many varieties of cheese, tea, etc. Of course, importations from all other countries are more or less affected by the war as the neutral European countries have deemed it wise to conserve their stores of food in many cases and have prohibited exportation entirely. The effect of decreased supplies in this country is being experienced on items such as currants from Greece, dates from Turkey, citron from Persia, shelled almonds from Spain, filberts from Sicily and walnut meats from France. In the case of all these last named items, old crop supplies at the breaking out of hostilities were very low in this country because of the fact that it was the end of the producing year and about time for the new crop to come on to the market.

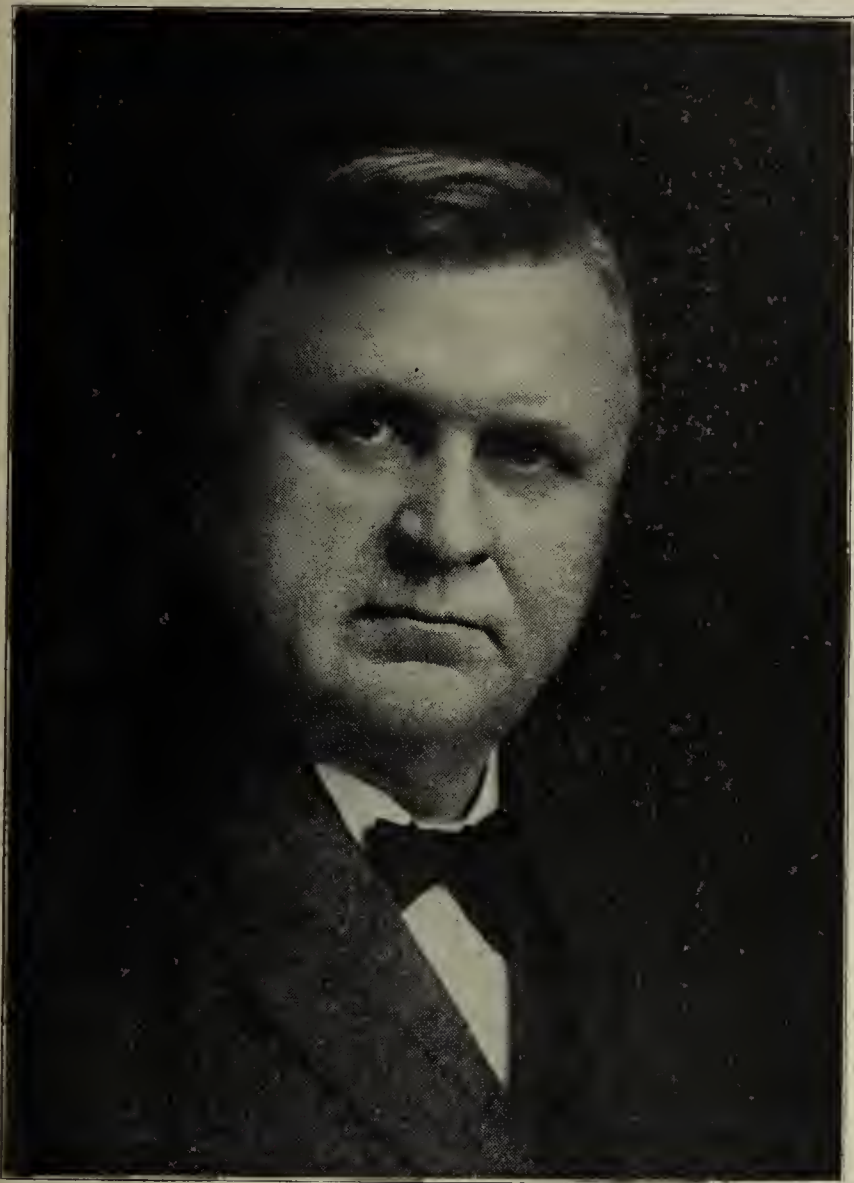
In the case of currants there is a very large production and it is probable that we shall not feel any particular shortage of the fruit in this country although we will have to pay a somewhat higher price. Greece is the only country which produces currants in large quantities so it is not possible to resort to any other source of supply.

The importation of the various varieties of fish will, without doubt, be greatly curtailed because of the fact that many of them are caught in waters which the belligerent countries have mined and thus made unsafe so that fishermen cannot take their usual catch. Norway mackerel is an instance in point. These fish are caught principally in the North Sea which has been the center of naval manoeuvres and all vessels have been warned that the waters are unsafe. French sardines will probably be in limited supply for some time, the French factories having been closed on account of the workmen being compelled to go to war.

Olives and olive oil come to us principally from Spain and there is every indication that importations will be curtailed and prices high. This will afford an opportunity for California and Arizona olive producers to insert a wedge that will result in giving their products the place in the American markets which they deserve. It is claimed by Pacific coast producers that their olives and oil are equal or superior to the imported goods, but that they have found it difficult to make headway in markets largely on account of the strength of position of the importing interests. This war will doubtless prove an impetus to American producers in many different lines and from now on we shall be less indebted to European and other foreign countries for our food supplies; for once we have learned that we can produce for ourselves what we have heretofore bought in Europe, foreigners will find the American people giving preference to home products. This is but natural.

GROCER FOR CONGRESSMAN-AT-LARGE.

At the recent primary election held in Illinois, Mr. Thos. P. Sullivan, a well known groceryman of Chicago and former president of the National Retail Grocers' Association, received the nomination on the Democratic ticket for congressman-at-large to the national congress. Mr. Sullivan is now a member of the state food standard committee of the Illinois food



MR. THOS. P. SULLIVAN.

commission, and has for many years been closely identified with work bringing him into intimate touch with food matters. He is making a strong appeal to the retail grocers of the state to rally to his support, as there is generally conceded to be necessity for the local merchants of the U. S. to be represented in congress by strong men who have a thorough knowledge of retail food distributors' needs.

WARNS AGAINST POISON FLY PAPERS.

In the October number of "Child Betterment" is given a warning to the public against the use of poison fly paper. In connection with the article is published a list of accidents from poison fly paper covering a short period between July 1, 1914, to Aug. 24, 1914, inclusive. The list chronicles 35 cases of poisoning of which 5 were fatal and 30 non-fatal or uncertain. Introducing the subject the editor of the periodical says: "Considering the safe up-to-date methods of destroying that pest, the domestic fly, it is remarkable that people will persist in using the poison fly papers. The basic toxic principle of all these papers is arsenic, one of the deadliest and most insidious of poisons. The danger to children is great, and the danger to adults is by no means inconsiderable. The danger in general is proved by various items in our exchanges."

SWAT THE LIE.

A FAIR exchange is no robbery. The food officials of the country were responsible for the popular phrase, "Swat the Fly," and for the good work which that slogan has caused to be done. Now the National Association of Advertising Men has paraphrased "Swat the Fly" and uses the caption which appears over this article, as a catch word for their campaign for honest, clean advertising. Thus, the advertising men borrowed from the food men, but it would seem that in turn the food men are about to borrow back from their advertising friends and to add "Swat the Lie" to "Swat the Fly."

At the Portland meeting of the Association of American Dairy, Food and Drug Commissioners, held in July of this year, one of the principal addresses was by Dr. S. J. Crumbine, Secretary of the Kansas State Board of Health, and now president of the association which he then addressed. Dr. Crumbine dealt with the subject of false advertising, and urged in the strongest terms that the National and State Food and Drug Laws have failed and will continue to fail to afford the fullest protection possible to the consumer against false and fraudulent food and drug products until these laws are supplemented by so-called false advertising laws. In the course of his address, Dr. Crumbine said:

"False and misleading statements, designs and devices that appear any place than upon the label, or attached to the package, or false and deceptive methods of advertising used by designing agents, dealers, salesmen or manufacturers, cannot be reached or prevented by resort to the food and drug law, and thus in many instances, the public continues to suffer by reason of gross misrepresentations of one sort or another."

Such a deep impression was made by the address of Dr. Crumbine that, at the conclusion of his address, a committee of three was appointed to draft a false advertising law, copies to be sent to all food commissioners on or before the end of December, 1914, the idea being that each commissioner should have a copy of the proposed model law to submit to the legislature, meeting in 1915.

With this movement to eliminate false and lying statements from advertisements of foods and drugs the vast majority of food manufacturers are in full accord. It is a movement which will have the enthusiastic support of everyone who believes in honest and square dealing. Such a law is a protection not only to the consumer, but to the honest manufacturer as well. If a food or a drug merits the confidence of the public, because of quality and price, there is no need to resort to misrepresentation in its sale.

BOTTLERS TO MEET.

The American Bottlers' Protective Association of the United States will hold its annual convention at Louisville, Ky., October 13-15 inclusive. Convention headquarters will be at the Seelbach hotel, Fourth and Walnut streets.

DEATH OF DR. D. E. SALMON.

Dr. D. E. Salmon, who was chief of the bureau of animal industry for more than twenty-one years, from its organization in 1884 up to the latter part of 1905, died at Butte, Mont., on August 30.

WILL MEET TO DISCUSS STANDARDS.

THE state dairy and food officials of the country, and particularly those of the central states, have been requested by Dr. J. S. Abbott, in charge of state co-operative food and drug control, to meet in the office of Commissioner Matthews of the Illinois commission, in the Manhattan building, Chicago, Monday, October 26, for the purpose of trying to come to some agreement on a uniform standard for ice cream and evaporated milks, butter fat content of butter, cheese and other food articles that are the products of milk or cream, and also for the purpose of determining, if possible, some uniform standard of inspection for dairies, milk depots, places where bulk milk is retailed, and for milk distributors.

It was deemed especially appropriate to call the meeting at this time, as it would bring the officials together during the time when the National Dairy Show was in session, and that would give them an opportunity of not only attending to the matter of standards, but of meeting many of the manufacturers of the articles in question, who will be here attending trade conventions in connection with the dairy show. For instance, there will be meetings of both the state and national associations of ice cream manufacturers, the American butter manufacturers, cheese makers, milk producers, the International Milk Dealers' Association, National Poultry, Butter and Egg Association, and the International Association of Dairy and Milk Inspectors.

It is very evident that there is going to be a gathering of men familiar with dairying and its allied interests such as has never been gotten together before in this country, and the dairy officials can profit by the experience, knowledge and judgment of these men. For instance, when they take up the matter of the uniform score for dairy and milk inspection, they can have before them leading lights of that association, which is to meet here. There is to be a place on the program of the National Poultry, Butter and Egg Association for the dairy and food control official, who is interested in the egg work. There will be a meeting of the American Butter Manufacturers with whom they can take up and discuss to mutual advantage a butter fat content standard in butter. And there will be the cheese makers' "round up," with whom they can discuss matters regarding the butter fat content of cheese and the labeling of cheese. Then there is the Official Dairy Instructors' Association, which meets during the dairy show on October 27. The experience and knowledge of these men will be very beneficial. It seems a very opportune time for those dairy and food officials, whose states are heavily interested in dairying, to take up these questions. There probably will never again be gotten together so many men well posted and interested that can aid the officials in their deliberations. Then also there will be the available goods for test at the show and on the markets of Chicago.

We think Dr. Abbott is to be congratulated upon the idea of calling these dairy officials together at this time. There are always so many things to take up the time of the program of the dairy and food officials at their annual meeting that it seems necessary to get together on a side meeting of this kind, to take up particular questions, as will be done in the present instance.

CO-OPERATION WINS.

IN this issue of THE AMERICAN FOOD JOURNAL we are publishing a very complete report of a case in which a large shipment of eggs had been seized in Chicago by the state food authorities under the contention that they were unfit for human consumption. The suit was instituted by the state, seconded by the federal food authorities, under the recently inaugurated plan of the U. S. Bureau of Chemistry to co-operate with state officials. This co-operation is accomplished through the appointment by the United States authorities of the state official as the federal officer, thus combining in the same individual state and federal powers.

This egg case was decided against the eggs and in favor of the people.

The food control officials are well pleased with the result in this first trial under the co-operative system. A decision in a case under this method of procedure carries with it double weight, as it constitutes virtually a decision both as to state and interstate shipments, and the present method of co-operation between state and national authorities is certainly a long step forward in food control work.

DR. FORST PROMOTED.

LEO B. FORST, popular head of the United States Pure Food and Drugs Laboratory in Cincinnati, in the Federal Building, yesterday received notice of his appointment as chemist in charge to succeed Dr. B. R. Hart, who last December was transferred to San Francisco as chief of the Western Division Bureau of Chemistry. The appointment was made by Chief Chemist Dr. C. L. Alsberg, head of the Bureau of Chemistry at Washington, upon the recommendation of Dr. L. M. Tolman, of Chicago, who is chief of the central division, of which the local laboratory is a part. The promotion of Mr. Forst dates from Sept. 1, and carries with it a handsome increase in salary.

Mr. Forst is a son of the late Isadore Forst, a former prominent citizen of Louisville, Ky. He graduated from the Louisville high school in 1902, and in 1906 he graduated from Columbia University, New York.

Since Dr. Hart's transfer, Dr. Forst has had charge of the Cincinnati laboratory with the title of acting chief chemist.

"BAT THE RAT."

The "Bat the Rat" idea as a sanitary measure, which was originally suggested by Mr. Sherer of Sherer-Gillett Co., Chicago, in his address before the recent annual convention of the Association of American Dairy, Food and Drug Officials, seems to have been a happy thought. A systematic campaign to "Bat the Rat" has been instituted in many states through the pure food departments, and it looks as though Mr. Rat is going to have a sorry time of it from now on. It's a good work and deserves energetic encouragement all along the line.

FOOD COMMITTEE MEETS.

We are advised by the Chamber of Commerce of the United States of America that the special committee on uniform food and drug regulations, appointed by the chamber, will hold a meeting in Washington at their general offices, Riggs Bldg., October 8.

Food Commission at the Fair

THE Illinois State Food Commission had an elaborate exhibit at the State Fair, which was held at Springfield, Sept. 19-26. A considerable space was occupied, the exhibit was splendidly arranged and the number of people who visited the booth showed the intense interest felt by all classes of people in pure food matters.

There was a comprehensive display of food samples so arranged as to permit of a comparison of the pure and adulterated articles, also those correctly and incorrectly labeled. Another feature of the food exhibit and one which never seems to fail to interest the public, was a showing of the comparative food value of the more common articles of diet, the unit used being one quart of milk.

In reference to the large amount of literature which the attendants at the booths handed out, it was very gratifying to note that the circulars and pamphlets evidently were taken home, for almost none were seen among the papers and booklets from other exhibits which were discarded by visitors as they passed onto new attractions. Much of the literature given out this year by the commission was of particular interest to the housewife, including such bulletins as "Care of Milk in the Home," "The House Fly and Its Habits," "Nutritive Value of Foods," "Production of Clean Milk," etc., etc.

Another big attraction of the exhibit was the egg candling booth. This was of good size, being 8 x 10 feet in dimensions, and attracted dealer as well as



ILLINOIS STATE FOOD COMMISSION EXHIBIT AT THE STATE FAIR.

The sanitary counters and similar equipment for grocery stores proved of special interest to the country merchants, the rank and file of whom are rapidly falling into line with the sanitary movement and are putting the most modern and approved furnishings in their stores. Modern dairy equipment and sanitary appliances were also a part of the display.

Thousands of people stopped to see the clever, effective and inexpensive flytrap, which was in charge of Inspector Hobson, who demonstrated the trap's features every half hour. The trap was the same as described in Bulletin No. 29, published by the Illinois Commission, and can be made cheaply by anyone ordinarily handy with hammer and saw. An immense quantity of these bulletins were handed out to those who wished details of construction.

housewife. Everyone seemed to want to know how eggs are candled, and the demonstrator—an expert candler—gave instructions for candling and explained how to tell the approximate age and condition of the egg by means of this simple test.

The activity of the State Food Commission was apparent not only at the booth but all over the grounds, and inspectors visited the privilege stands three times daily, keeping a keen watch on the sanitary conditions surrounding them. Many of the old forms of adulteration were found, noticeable among these being spurious apple cider, orangeade and grape juice. Whenever stands with this character of goods were found, the owners were given the option either of engaging in legitimate business or leaving the grounds. Ice cream cones being colored with red ink were found at one stand and a reform speedily took place.

Food Officials Win First Co-operation Case.

SHORTLY after Mr. Tolman had established the headquarters of the Central Food and Drug Inspection Division in Chicago, he had a conference with Commissioner Matthews of the Illinois Food Department regarding the receiving, handling, storing and distribution of bad eggs in Chicago. It appeared that Chicago afforded a food market for the culls and rejects of the country candlers. Mr. Tolman's attention had been drawn to this situation through the reports of his inspectors out in the field. His attention was also called to it by some of the commissioners in charge of food work in the states of the Central District, who, during the previous two years, had made strenuous efforts not only to better the condition of the eggs going on the market, but also to educate the farmer to so handle the eggs produced on his farm that he would have a larger per cent of edible eggs for sale. It has been demonstrated that many millions of dollars were being lost by the farmers through the careless handling of eggs on the farm, and every commissioner has been issuing bulletins on how to better handle the eggs. They had all recommended that the country merchant who first received the eggs from the farmer should candle the eggs, pay only for the good eggs, and insist that the farmer take back all the bad eggs, thus bringing the attention of the farmers to the number of bad eggs caused by careless handling. It was generally conceded that after Mr. Farmer had carried home several lots of bad eggs he would begin to avail himself of the educational matter at hand that would enable him to have less bad eggs; consequently more good eggs and a larger return. They had been succeeding in this work when the country merchant began to receive quotations from the Chicago dealers for "rots" and "spots," offering from \$1.50 to \$2.50 a case. It was represented that these eggs were used for manufacturing purposes, and should be labelled accordingly. After receiving these quotations, the country merchant saw a chance to settle with the farmer on a loss off basis, but instead of returning to the farmer the bad eggs to keep them and ship them in response to these quotation cards, getting this extra money for these bad eggs. This broke down the lesson to the farmer, as he did not have the bad eggs handed back to him by the country merchant.

The shipping of eggs by the country merchant to Chicago in response to these quotations had a very demoralizing effect upon the work that had been started by the various state food departments, and they complained to Mr. Tolman and to Commissioner Matthews. The Illinois Food Department had received complaints during several months previous along the same lines, but, owing to the small force available and the great demands at all times in various lines for the services of the inspectors, it was felt that this work could not be undertaken until some co-operation was obtained.

As a result of a conference between Mr. Tolman and Commissioner Matthews, it was agreed that the State and Federal inspectors should work together in order to clean up the egg situation. The results achieved demonstrate what can be accomplished by co-operation between the Federal and the State officials. It is an auspicious beginning for the new bureau of co-operation, of which Dr. J. S. Abbott is in charge.

Early in August the egg campaign began in earnest. The work was laid out along two general lines. First it was necessary to demonstrate that eggs labelled "For Manufacturing Purposes Only," "Rots and Spots," "Unfit for human food," were being sold and used in the manufacture of food-stuffs. Secondly, the eggs of the above types must be seized in the shell to prevent their being distributed and used in the manufacture of food products. In order to get the necessary evidence for seizure of the eggs in the shell, before they could possibly be introduced into food products, it was necessary for the inspectors to trace the shipments from the time they arrived in Chicago to the place of business of the dealer or manufacturer who was going to use them for food purposes. It was in this particular part of the work that the working together of the State and Federal inspectors was of the greatest value, the Federal men being familiar with the railroad companies' methods of handling these products, while the State men were particularly familiar with the use and distribution methods in Chicago. The work of all of these inspectors in Chicago was greatly facilitated by the information supplied by the State commissioners and the Federal inspectors located in the surrounding states, who constantly supplied information regarding shipments of these classes of eggs.

About 36 different shipments of these shell eggs were seized by the state, 14 by the Federal government, and a number by the city authorities, aggregating about 4,000 cases of 30 dozen each. In addition, the state seized a large number, about 1,500 cans, of frozen eggs which had been made from material of this kind.

The inspectors had hardly entered upon this work, making their first few seizures, before the egg merchants who handled cheap eggs showed the keenest interest in the activities. The manner in which some of them adapted themselves to the situation is interesting. For instance, some receivers, as soon as their attention was called to it, notified the State Commission that they would destroy (and later did destroy) the eggs of this character, assuring the department that they would refuse to receive them in the future. Others sent out notices to their shippers, informing them that the state and government authorities were after this kind of eggs and advising them to ship these eggs without any marks on the cases. It was requested that the shipper notify the merchant at once of each shipment so that the arrival of the eggs could be anticipated; thus getting them away from the depot before the inspectors could seize them. Others notified their shippers that the State and Federal authorities were after these eggs and to divert their shipments or to lay low for a while. Others refused to comply in any way and went on receiving and handling these eggs, and showed a desire to contest the authority of the commissioner to make these seizures.

In compliance with the Illinois food law, a hearing was given in each seizure as soon as it was possible, after an analysis of the samples from the seized eggs. At these hearings there was a great difference in the attitude of mind of the dealers in these eggs. Some were heartily ashamed of the fact that they were caught handling such a product, while others brazenly defended their right to use the eggs for the manufacture of food products. In some cases, where the people desired to get out of the business, they were given an opportunity to destroy the eggs. A large number of these seized lots were sent to the garbage for the manufacture of fertilizers, which was their proper destination.

At the hearings the defense of most of the manufacturers and dealers was that only the good eggs were used in these lots and that the bad eggs were thrown out. Investigation showed that such was not a fact, but that there did actually exist in Chicago a very extensive market for these eggs, even in advanced stages of decomposition, in the manufacture of cakes and similar bakery products.

In order to prove this, the inspectors followed certain lots of eggs from the dealers until they had been delivered, in the original cases, marked "For manufacturing purposes," or marked "Not fit for food," to certain bakeries where the inspectors saw them broken out into cans and then mixed into the dough in the preparation of cakes. Samples of the cakes were afterwards secured by the department.

In those cases, where the right of seizure was contested, papers were given to Mr. James McCarthy, attorney for the Food Department, for prosecution. The first case to come to trial was that of the People vs. 50 cases containing 30 dozen of shell eggs, more or less, found by the Food Department, in the possession of C. H. Weaver & Co. The complaint praying for confiscation and condemnation includes seizures made on August 11, 12, 13 and 18. Two lots were unlabelled, four were marked "For manufacturing purposes only" and one bore the inscription "Rot Spots." It was alleged that the eggs were adulterated in that they consisted in whole or in part of a filthy, putrid or decomposed animal substance.

The Perfection Egg Co., entering as claimant for the eggs, alleged that the eggs were not being sold as shell eggs; that only the good ones were used in the production of a desiccated egg powder.

The case was heard before the Hon. Edmund K. Jarecki, judge, and the jury in the Municipal Court, Chicago. Testimony in part for the State was as follows: That certain of the State and Federal inspectors found the eggs at various railroad offices in Chicago. A candling test showed a large proportion to be bad. The shipments were traced to the premises of C. H. Weaver & Co. Samples were bought from the said firm. These were delivered to Dr. David Klein, State Analyst, who caused them to be examined. The results of the chemists, expressed as number of eggs, are:

Lot.	Edible.	Doubtful edible.	Inedible.
1.....	81	131	148
2.....	99	133	128
3.....	..	4	72
4.....	..	23	96
5.....	4	60	116
6.....	6	115	239
7.....	..	39	141

Three expert candlers independently examined a case out of each of the above lots. Their results agreed very closely. One report follows:

Lot.	Good eggs.	Bad eggs.
1.....	22	338
2.....	120	240
3.....	47	313
4.....	92	268
5.....	110	250
6.....	102	258
7.....	16	344

Mr. Lasnier, manager of the egg department of Sjostrom Bros., Marcus, Iowa, testified that two candlers, working under his directions, candled out what they called "bad" eggs from the good eggs. The "bad" eggs were then recandled by Mr. Lasnier, and only the bad ones put in cases, and sent to M. L. Brown, Chicago. It was also brought out by the State that the general understanding of the term "For manufacturing purposes only" was for "Making tanners' oil," or for fertilizer.

The defense in part is as follows:
The claimant contended that C. H. Weaver & Co. were the agents for the Perfection Egg Co.; that the latter concern does not engage in the sale of shell eggs; that it was their habit to use only the good eggs to be made into a desiccated egg powder. A large number of witnesses, invited to inspect the egg-breaking plant on two separate occasions, when the duplicate samples left by the State inspectors were examined, testified that the eggs were carefully candled, and the good ones placed in water at 54° C. for one and one-half hours. The eggs were broken and all blood rings, eggs with adherent yolks, eggs with green whites, and all eggs with odor were rejected. Dr. R. W. Webster reported some bacteriological results upon the treated eggs. He testified that maintaining an egg at 54° C. for one and one-half hours would "pasteurize" it, and a subsequent bacteriological examination would be no indication of the bacterial state of the egg before the heat treatment. He also affirmed that after smelling bad eggs for about a half day one lost the sense of smell. Mr. Carleton, superintendent of the Perfection Egg Co., testified that the eggs were judged mainly on their odor. Mr. Thornburgh, vice-president of Perfection Egg Co., and manager of the egg department of C. H. Weaver & Co., testified that his duties were to buy and secure eggs for both C. H. Weaver & Co. and the Perfection Egg Co.; that C. H. Weaver & Co. secured eggs for the latter concern on a brokerage basis; that a yellow sales ticket was issued for these eggs in the same manner as for cash sales, except that it was turned over to the bookkeeper instead of to the cashier.

The number of good eggs found by the Perfection Egg Co. in the various samples are:

Lot.	Good eggs.	Bad eggs.
1.....	253	115
2.....	239	121
3.....	71	217
4.....	117	122
5.....	117	63
6.....	226	134
7.....	77	103

In the second set of samples:

1.....	273	87
2.....	233	127
3.....	125	235
4.....	112	248
5.....	279	81
6.....	143	217
7.....	169	191

In rebuttal, Inspector Kelso of the Chicago Health Department, testified that before and after the seizures involved in his trial he had inspected the plant of the Perfection Egg Company. He stated that only the very black rots were rejected in the candling room; that he saw the egg breakers put blood rings, adherent yolks, and mixed eggs into the liquid egg mixture; and that the agitators had a mouldy odor. Mr. Sullivan, a State inspector, also testified to the latter condition. Miss M. K. Jenkins, who had worked for several years under the direction of Dr. Pennington, on a co-operative investigation of model egg breaking establishments, testified as to the practices of these concerns.

The jury was instructed to answer the questions:
Were the eggs adulterated in whole, or in part, or not at all?
Were the eggs at the time of seizure being sold, offered for sale or exposed for sale?
The jury answered that the eggs were adulterated in part, and replied affirmatively to the second question.
A ruling on a motion for a new trial is pending.
The case has attracted considerable attention, as it involves a very vital part of the Illinois Food Law: viz., the interpretation of the seizure and condemnation sections of that law.

NATIONAL DAIRY SHOW.

THE 1914 National Dairy Show which is to be held in Chicago, October 22-31, presents a program never before equalled for this annual event. A very large number of organizations having interests allied to dairy products have chosen to hold their meetings during Dairy Show dates and every day has some important event scheduled. These include the following:

- Oct. 23 and 24—International Association of Dairy and Milk Inspectors.
- Oct. 26—Holstein-Friesian Association of America.
- Oct. 26—Men in Charge of Cow Testing Associations.
- Oct. 26 and 27—National Poultry, Butter and Egg Association.
- Oct. 26 and 27—International Milk Dealers' Association.
- Oct. 27—American Association Creamery Butter Manufacturers.
- Oct. 27—Ayrshire Breeders' Association.
- Oct. 27—Conference, Secretaries of State Dairy Men's Associations.
- Oct. 27—Official Dairy Instructors' Association.
- Oct. 27—Conference of breed secretaries.
- Oct. 27, 28 and 29—National Dairy School Alumni Association.
- Oct. 28—National Dairy Union.
- Oct. 28—American Dairy Farmers' Association.
- Oct. 28—Council of the National Dairy Show.
- Oct. 28—National Association of Creamery Managers and Owners.
- Oct. 28—American Jersey Cattle Club.
- Oct. 28—Dairy and Farm Press Editors.
- Oct. 28, 29 and 30—National Association of Ice Cream Manufacturers.
- Oct. 29—American Guernsey Cattle Club.
- Oct. 29—Congress of Marketing.
- Oct. 30—Cheese Makers' "Round Up."
- Oct. 30—Milk Producers' Association.
- Oct. 31—National Dairy Herdsman's Association.

The Illinois State Food Commission is preparing to make an especially fine exhibit. The commission will feature food values and the economic use of milk and other dairy products. There will also be an exhibit showing the comparative value of feed stuffs.

Every article of commerce used in the construction of a dairy barn and the equipment will be on exhibition. Every article used in the dairy, from the milk pail to the knife that cuts the butter into prints, and the paper and carton it is sold in, are to be shown. Every piece of machinery, and all of the supplies used in the creamery, and the cheese factory, the ice cream plant, and the milk bottling plant will have its place in the show. The paraphernalia that is necessary to the retail marketing and distributing of all dairy products will also be on exhibit. The county high schools and the public schools, the women's clubs, and the domestic science department of agricultural schools will participate in making this the greatest dairy show ever held in the world.

CANADIAN STANDARDS FOR SUGAR.

The Canadian government under the "Adulteration of Food Act," 1906, has established the following standards as quality of sugar:

- Sugar is the product chemically known as sucrose (saccharose), and is at the present time found in commerce as obtained from sugar cane, sugar beets, sorghum, maple, and palm.
- Sugar, whether sold as granulated loaf, cut, milled, or powdered sugar, shall contain at least 99.5 (ninety-nine and five-tenths) per cent of sucrose, and shall be free from any artificial coloring matter.
- Icing sugar is a powdered sugar specially prepared for bakers' use, and may contain starch not to exceed 5 (five) per cent by weight.

Marketing by Parcel Post

AT A conference of the postmasters of the eastern states, held at Washington on the 6th of October, for the purpose of discussing various problems connected with the operation of the parcel post system, Mr. Charles J. Brand, Chief of the Office of Markets, Department of Agriculture, made the following address:

There is a great diversity of opinion as to the benefits that will come to producers through the inauguration of the parcel post. Some are greatly pleased with the prospect of direct marketing of such products as lend themselves to proper distribution by this means and already are availing themselves of the facilities that have been provided. Others see nothing hopeful or promising in the parcel post system and usually have not tried it at all or have tried it in a very inadequate fashion and without due attention to the many important details of successful marketing in this manner.

It is important to remember that there is nothing automatic about the parcel post. It is merely a vehicle for the transportation and delivery of produce, the successful development of which will depend very largely upon the shipper, though also in part on the purchaser or consumer. This presumes, and with the best of reason, that the post office department will do its part of the work with dispatch and care.

As a method of marketing, the parcel post will succeed only in such measure as it accomplishes more efficiently and economically the functions performed by the numerous middle interests of the present system. Its greatest advantage naturally will appear, so far as shipments from the farm are concerned, in those commodities which are produced practically in the condition in which they are finally retailed to the consumer, but even in the case of such products there must be a well understood and business-like agreement as to how fair and reasonable prices are to be arrived at and as to the particular qualities that are to be delivered at the stated prices.

There is an unfortunate tendency on the part of some farmers who have butter, eggs and other produce to sell to ask prices far above those current in their own rural localities and higher even than those exacted by the fancy retail stores of the cities for products of the same grade. Fundamentally there are only two reasons to persuade the consumer to undertake the additional trouble and uncertainty of securing produce by mail. These are economy in cost and greater freshness of product. No unusual method will ever be popular unless it gives results along one or both of these lines. Producers must be very careful not to overreach in the matter of price. Unless they are willing to share the saving with the consumer who agrees to receive food products which he has not had an opportunity to examine and whose quality and time of delivery will always be subject to a degree of uncertainty, there is little prospect of the wide extension of the parcel post system which it deserves, so far as the farm is concerned.

Recently the post office at Washington, D. C., has been very active in trying to promote parcel post marketing, collecting lists of names of farmers and others who have produce to sell, and printing and distributing these lists to patrons of the Washington office who might become purchasers. A few cases with respect to eggs alone will suffice to illustrate this tendency referred to above. One New Jersey farmer offers eggs at 40 cents a dozen the year around, a Pennsylvania farmer in June offers "fresh white sanitary eggs" at \$1.00 for two dozen; a Virginia farmer offers eggs at Washington quotations plus 10 cents. It is difficult to see how a user of eggs could afford to pay such prices when fresh country eggs are being sold by farmers to country grocers at this moment for prices ranging above and below 20 cents a dozen in trade.

The difference between the country price and the city price must be shared fairly between the producer and the buyer. The latter will not take chances on things that cannot be examined and which in some cases may not fulfill the particular need; furthermore, he will not bear the uncertainty as to time of arrival unless there is a gain to him in so doing. On the other hand, much of the consumers' particularity is based on illogical prejudice so that they, as well as the producers, must standardize their demands and make concessions.

Standardization of products is one of the essential things to parcel post marketing. Uniformity in quality is almost as important as high quality. It is likely that the most satisfactory way to make progress along these lines is through the preparation of descriptive specifications for those kinds of produce that will be marketed most largely through parcel

post. Only by some such means can the necessary protection be afforded the purchaser as to quality and the producer as to price.

The Office of Markets is engaged in a study of standardization which will enable it to publish such grade descriptions as will facilitate ready intercourse.

Farmers should remember that the parcel post works both ways. It is just as useful in having things sent to the farm as in sending products away from the farm. Those who have not tested it as a means of securing things to supply their own needs will be surprised at the convenience and delight of having orders which can be placed by postal card or telephone delivered at the rural free delivery box in front of the farm.

The practicability of shipping perishable produce is not open to serious question. For many years the investigators in the Department of Agriculture concerned in the introduction, breeding, improvement and general study of all kinds of fruits, vegetables, and other plants have utilized the mails in the shipping of experimental material. In this way every thing from the most delicate fruits to vegetables suitable for all winter storage have been shipped from a few miles to several thousand miles. In a great majority of cases packaging and packing has been devised after a very few trials which have resulted in delivery in good condition. More recently, definite and carefully planned experiments covering eggs, butter, strawberries, cherries, lettuce and assorted vegetables have been undertaken.

The tests that have been conducted in the shipping of eggs are described in Farmers' Bulletin No. 594, entitled "Shipping Eggs By Parcel Post," which can be obtained free of charge upon application to the Division of Publications, Department of Agriculture, Washington, D. C. During the progress of this experiment and since that time, over 10,000 eggs have been shipped with a loss small enough to constitute a thorough practical demonstration favorable to the method. In the bulletin detailed instructions are given by means of which any farm operator, his wife, or older children could make a beginning in the establishment of a parcel post egg market. Indeed many cases of permanent arrangements between producers and consumers whereby shipments have been made regularly for a period of months have already been made. From October of last year to June of the present year the writer secured practically his whole supply from a farm 92 miles distant from Washington, involving a transfer point for all mail. Only two cases of breakage in sufficient quantity to be worthy of comment occurred.

There are numerous types of containers, several of which have proven satisfactory, concerning which information may be obtained by interested persons by applying to the experimental stations in their respective states.

Extensive experiments in the shipping of butter by parcel post have been under way for a number of months. No shipments of less than two pounds are made because of the relatively greater expense incident to the shipment of single pounds. It has been sent in two, three, five and ten pound parcels, not only from the creameries at which it was produced to the office in Washington, but from Washington to experiment stations throughout the country for examination there and subsequent return. The butter used has all been put up in one-pound prints, wrapped in regular waterproof butter paper and placed in paraffined paper cartons such as are most commonly used in the distribution of fancy creamery butter. These cartons are then inserted into corrugated pasteboard containers suitable for accommodating the differing amounts to be shipped and wrapped with good wrapping paper.

Under ordinary weather conditions practically no difficulty has been experienced in the shipment of butter. The chief problem to be solved, of course, is to prevent the butter from liquifying; mere softening has not proven injurious. The difficulty is somewhat less acute in cold weather than in warm. However, the fact that mail cars must be heated in winter, and that this is accomplished by superheated steam pipes located along the outer walls of the car and behind the mail sacks tends to make the problem of butter shipment in winter somewhat similar to that in warm weather.

The regulations of the Post Office Department on this subject are of such a nature that it is possible to obviate the trouble to a considerable extent in cold weather by marking butter parcels as follows: "Perishable—Keep away from heat—"

ing apparatus." Mail clerks are expected to be guided by such instructions and to give perishables special care.

With the growth of the parcel post as a method of shipping perishables it would seem not unlikely that in the future some method of refrigeration on a small scale might be developed. Over ordinary distances and under average conditions butter wrapped as outlined can be shipped without deterioration. It should always be chilled before shipment and chilled again immediately upon receipt by the purchaser. It should be dispatched with attention to the mail schedule so that it will be on the road as short a time as possible and it is preferable that shipments should be timed to make the greater part of the journey at night when temperatures are materially lower than during the day.

During the strawberry shipping season, which is just closing, 28 crates of berries have been handled by the parcel post. Twenty-four of these in 16-quart size crates were shipped from the eastern shore of Maryland. In order to comply with the post office requirements the crates were fitted with tight bottoms which would make leakage difficult though not wholly impossible. Parcels of this character weighing over 20 pounds are very generally handled in a manner similar to express and are not put in bags. Those weighing less than 20 pounds are usually placed in mail sacks and the wrapping in either case must be done accordingly. In only two cases did the individual quart boxes containing the berries show sufficient leakage to stain the bottom of the crate itself; and in only one of these cases was there any evidence of leakage on the outside of the crate. Considering the perishable nature of the product and the distance over the ordinary routes of travel from the eastern shore of Maryland to Washington this test certainly indicates promise, as the berries were received in fully as good condition as would have been the case by any other means of transportation, and were of better quality than berries selling at a higher price at the particular time in the Washington market.

The shipment of the strawberries raised another small but practical point in the relation of the parcel post to domestic economy. The housewife usually plans to do her preserving or other operations on definite days, hence it is important that the shipper and the carrier accomplish the delivery as requested in order that the buyer may be satisfied. Berries intended to be preserved on Wednesday can occasion a great deal of inconvenience if they arrive on Thursday when the servant is having a holiday or the homekeeper herself has other engagements. There is small doubt but that over reasonable distances and with the fruit of proper shipping texture strawberries can be carried quite satisfactorily.

As an experiment in the practicability of shipping in the present 32-quart size commercial crate, three shipments were made with the crates only three-fourths full to keep them within the weight limit and in a fourth case as an experiment outside of the present weight limits a full 32-quart crate weighing 56 pounds was shipped. These crates were received in fully as good condition as the 16-quart crates.

Small preliminary experiments with both sweet and sour cherries have been made, but not enough shipments have been conducted to warrant any statement of conclusions.

During the late winter and early spring eight or ten barrels of lettuce produced in the experiments of the department on the Arlington farm, conducted by the Bureau of Plant Industry, were shipped to various parts of the country in 142 parcels. The varieties used in the experiments were the "Boston Head" and "Grand Rapids." The parcels usually contained, depending upon the size of the heads or bunches, from two to several dozen heads. The average weight of parcels containing eight to ten heads was between four and four and one-half pounds. The average weight of those containing six was about three pounds. The parcels were shipped not only in the local zone and to nearby points, but to places as far away as Boston, New York, Toledo, Chicago, Minneapolis and elsewhere. In spite of the fact that zero weather prevailed during a part of the time when experiments were in progress, the lettuce carried through to destination satisfactorily and with only a small percentage of waste. In the local zone, lettuce from shipments that were kept under observation was perfectly fresh and usable at the end of seven days. Ordinary corrugated cartons lined with paraffin paper and wrapped with ordinary strong wrapping paper were used for the shipments.

Experiments have also been conducted with parcels containing an assortment of vegetables available at the same time. Such shipments have usually been uniformly successful and present an extension of the hamper system which has been inaugurated to some extent by certain of the express com-

panies. The varying degree of perishableness of different vegetables must be borne in mind in making such shipments.

For the convenience of persons desiring to attempt the establishment of direct marketing contacts and for the information of all persons interested in the cost of shipping by parcel post there is given in the appended table the rate for the local, first and second zones of all parcels weighing from 1 to 50 pounds.

PARCEL POSTAGE RATES UP TO 150 MILES.		
Weight in pounds.	Local.	Zones first and second up to 150 miles.
1.....	\$.05	\$0.05
2.....	.06	.06
3.....	.06	.07
4.....	.07	.08
5.....	.07	.09
6.....	.08	.10
7.....	.08	.11
8.....	.09	.12
9.....	.09	.13
10.....	.10	.14
11.....	.10	.15
12.....	.11	.16
13.....	.11	.17
14.....	.12	.18
15.....	.12	.19
16.....	.13	.20
17.....	.13	.21
18.....	.14	.22
19.....	.14	.23
20.....	.15	.24
21.....	.15	.25
22.....	.16	.26
23.....	.16	.27
24.....	.17	.28
25.....	.17	.29
26.....	.18	.30
27.....	.18	.31
28.....	.19	.32
29.....	.19	.33
30.....	.20	.34
31.....	.20	.35
32.....	.21	.36
33.....	.21	.37
34.....	.22	.38
35.....	.22	.39
36.....	.23	.40
37.....	.23	.41
38.....	.24	.42
39.....	.24	.43
40.....	.25	.44
41.....	.25	.45
42.....	.26	.46
43.....	.26	.47
44.....	.27	.48
45.....	.27	.49
46.....	.28	.50
47.....	.28	.51
48.....	.29	.52
49.....	.29	.53
50.....	.30	.54

It should be explained that the local zone rates apply to all business originating within the territory of any office whether it is received on a rural route or from the city branches of the particular post office.

For distances greater than 150 miles a weight limit of 20 pounds applies. Rates for greater distances are not given as it is believed that the greater proportion of parcel post patrons will be developed within the 150 mile radius. A parcel for shipment by mail must not exceed 72 inches in length and girth combined. Determine the length between ends and take the girth at the thickest point. If the aggregate of the two is not greater than 72 inches, the parcel will be received for mailing. The name and address of the sender preceded by the word "From" must be placed on every package. From all money order post offices to offices of the same class parcels may be shipped "collect on delivery" on the payment of a 10-cent fee, but the value of the package may not exceed \$100.

In Circular No. 3, dated April, 1914, the Division of Classification, Office of the Third Assistant Postmaster General, published a very clear and comprehensive statement of the conditions under which parcel post shipments may be made, including instructions for preparation and wrapping. This can be obtained by application to the local post office or to the Post Office Department, Washington, D. C., and should be in the possession of every parcel post patron.

The Albumen Situation in North Dakota

IN SPECIAL BULLETIN NO. 10 of the Food Department of North Dakota, just issued, there appears the following article by Commissioner E. F. Ladd on the baking powder situation in that state:

"For more than a year there has been a controversy with regard to the condition of baking powders and investigations made by this department have shown that baking powders were being made from ingredients which contained such quantities of arsenic and lead as would be injurious to health and it was found that the addition of albumen to baking powder was not in a sufficient quantity to serve any useful purpose, while in a few instances it was found that the leavening power of some baking powders was deficient.

"From observations of the methods pursued, it was concluded that the only purpose for the use of egg albumen was that of deception, to deceive and mislead the purchasing public, to enable the demonstrators to make misrepresentations with regard to their competitor's goods, and to deceive the public with regard to their own. The department, therefore, ruled that the amount of arsenic and lead present must be held down to a reasonable limit and that the use of albumen was for the purpose of fraud and deception, and, therefore, illegal. Most of the firms doing business in the state at once complied with the requirements of this law. A few, however, failed to comply. All, as far as is known, are now complying with regard to the presence of lead and arsenic.

"Under the terms of a law not so exacting as that of North Dakota, the attorney general of Idaho ruled that the use of albumen in baking powder was in violation of the statute. The matter was taken into the United States courts and the courts held that the commissioner could not prohibit the use of albumen, as such constituent in food products, but the court further specifically ruled, as stated by the press:

"And it is further ordered, the plaintiff consenting thereto, that plaintiff, its agents or representatives, be, and it they are, hereby enjoined from using or suggesting the use of the 'waterglass test' in comparison with other baking powders."

"Thus the courts condemned the fraudulent feature and prohibited the use of the same for purposes of deception, and the courts further retained jurisdiction of this case so that there should be no violation of the court order. In Oregon the courts have not followed this view already largely advertised.

"The attorney general of North Dakota, however, under a more rigid law, seems to have taken a different view and rendered a decision, an official copy of which thus far the department has not been able to procure, that the commissioner could not enforce his ruling. This being the case, and the department not being in a position to employ legal talent to find whether the decision of the court of Idaho prohibiting the fraudulent features in connection with the sale of baking powders would be sustained, found it necessary to send to those asking for information, in this state, as follows:

"This department will not interfere with any baking powder or other product shipped into the state in conformity with the requirements of the laws of North Dakota. Of course, I cannot say further until the product comes into the state and in some points there may be a question raised that would necessitate a court decision. Beyond that I cannot go at the present time."

"It matters not what the decision may be. The fact remains, admittedly, that the use of albumen in baking powder is mainly for the purpose of deception and fraud. That this is the case is shown by the resolution unanimously adopted by the Association of American Dairy, Food and Drug Officials at Portland, Me., under date of July, 1914, as follows:

"Resolved, That this association vigorously condemns that existent practice involving the addition to food of a small or inappreciable amount of any substance, where such addition is obviously for the purpose of naming the substance upon the label, or otherwise to the end of imparting a value which is fictitious; also those methods of treatment, demonstration or representation generally which are misleading in effect or founded upon false principles. *And in this connection we denounce the fraudulent waterglass test used with 'Albumenized baking powder' in comparison with other powders.*"

"The companies interested in determining to what extent they could use albumen in their baking powders, as admitted by one of their representatives in my office, conceded that

the matter had been taken up with the federal authorities and they admitted that the information furnished them was substantially as follows:

"In view of the fact that the use of egg albumen in baking powder has heretofore resulted in extensive misrepresentations as to the relative strength and value of the powders which contain it, as demonstrated by the waterglass test, the label should clearly show to the consumer two things. First, the true purpose or purposes for which the dried egg albumen is added; and second, the relative amount of dried egg albumen present."

"They further admit that they were led to believe that it would be advisable to state in addition that dried egg albumen in the amounts ordinarily used in baking powder does not take the place of eggs in baked foods. This last is a direct admission that heretofore the purpose has been one of deception. Some of the new baking powder labels now are intended to convey the idea above outlined.

"The people of North Dakota must judge, therefore, for themselves as to whether or not the department was justified in condemning the use of fraudulent methods; and in discussing this very question, THE AMERICAN FOOD JOURNAL says:

"Manufacturers would better realize that the days have gone when it is possible to put over a fraud through the employment of news fakirs. Such a move is a confession of the weakness of their cause. They would better heed the admonition of the courts and the National Association of Food Commissioners, and do away with fraudulent tests and deceptive methods of salesmanship."

"Baking powder manufacturers have furnished the demonstrators with literature for their guidance, which shows the true purpose of the water-glass test and that the spirit back of all is one of deception with regard to the relative value of different baking powders. Sometime when the true history of the baking powder is written, it should be clearly shown that methods have been employed which were not in keeping with the biblical injunctions and that those who ventured into the arena for the purpose of protecting the public have, in times past, suffered in their attempt. There has been injected into every such undertaking a commercial fight, and methods have been resorted to that were far from being honorable, and, at times, it seems, have forced men to forsake their native land.

"The department still maintains that so long as albumen is used in baking powders where it serves no useful purpose as an article of food, the abuses of the past will continue, and while companies may claim that abuses come as the result of over-zealous action on the part of demonstrators and salesmen, the fact remains that the manufacturers themselves furnish the written statements to be used, and put their own words into the mouths of these men as to the statements and claims which they should make.

"Without changing my views one whit concerning these matters, for the time being the department abides the forces and circumstances that shape the conditions for the handling and selling of baking powders within the state; but in the end right will prevail, for nothing is settled until it is settled in accordance with honesty and justice to all concerned, and this department holds all baking powders containing albumen as being in violation of the spirit of the food law."

AMERICAN MINERAL WATERS.

Annual imports of mineral waters into the United States are over 3,000,000 gallons, having a value of nearly a million dollars. Two-thirds of these imports come from Germany, France, and Austria-Hungary, and as soon as the stocks on hand are consumed, domestic waters should take the place of those derived from foreign springs. In this connection it is interesting to note that last year the reported sales from 838 commercial springs in the United States were more than 57,000,000 gallons, having a total value of \$5,500,000. The United States Geological Survey suggests that there is a somewhat popular but fallacious impression that certain European waters have medicinal properties not possessed by any American waters, and many persons addicted to the Apollinaris, Clysmic, or Celestine-Vichy habit might be equally satisfied by waters from American springs in bottles of American glass, bearing labels printed in the United States.

ADVISE APPLE STORAGE.

In view of the interference with the European market and the large production of American apples this season, specialists of the Department of Agriculture call the attention of apple growers to the advantages of cold storage for steadying the market at harvest and for lengthening the selling period.

Glutting of the market will result, it is feared, in many thousands of barrels of good apples rotting in the orchard or being disposed of at prices which figure a net loss to the grower.

The following are the directions given by the apple handling specialists of the department for using cold storage successfully in handling apples:

The proper function of cold storage is to retard the ripening processes of the fruit and the development of decay organisms and skin blemishes. The first responsibility for the keeping quality of his fruit rests with the grower since it is his growing and handling methods that largely determine its vitality, freedom from disease, and general condition when stored. Cold storage is not a remedy, or a restorative for poorly developed, weak, imperfect fruit, but is the most effective method of preserving the quality, flavor and appearance possessed by the fruit at time of picking.

The first step in successful cold storage of apples has been found to lie in the practice of such cultural, spraying and pruning methods as insure production of sound, healthy, well colored fruit, free from disease. Assuming this as the first requisite, the following factors have been found to most influence the keeping quality of the fruit, and furnish best conditions for long storage:

1. Proper maturity at time of picking.
2. Care in all handling operations.
3. Prompt storage after picking.
4. A proper storage temperature.

Careful and extensive investigations have demonstrated that fruit picked at full maturity can be held for a longer period in storage, and is less affected by scald and decay than that picked when somewhat immature. Two important commercial varieties—Rome Beauty and Winesap—have been found to be especially susceptible to scald during storage, if picked prematurely. There is no doubt that several thousand dollars are lost to the industry each year through the improper picking of these two varieties alone. The results emphasize strongly that more care and attention should be paid to this detail of the harvesting operations than is usually the case.

By full maturity, however, is not meant over-maturity, which may cause fully as heavy losses as immaturity. Each grower should study his own fruit and his own conditions in order to determine the proper picking stage. Probably the most reliable single indication of maturity is the whitening or slight yellowing of the "ground color" of the fruit. This is the color underlying the blush or red color and should not be confused with the latter.

Care in all handling operations is the second important requisite of successful storage. A class of fungi, of which the common blue mold is an example, are known to be unable to attack and cause decay of healthy, uninjured fruit. In spite of this fact, very serious rots, both in storage and in transit to market are the work of fungi of this type, and the largest contributory cause in all cases is bruising or skin breaking suffered by the fruit in the picking and packing operations. Microscopic bruises and breaks in the skin are large enough to afford entrance to the spores of these fungi and the necessity for the utmost care in all operations connected with the handling of the fruit to avoid bruising and mechanical injuries is more urgent than most growers realize.

There is a marked difference in condition between fruit stored promptly after picking, say not more than two days later, and otherwise comparable lots of which the storage is delayed ten days or two weeks. Such delay is especially injurious during a period of warm, humid weather. The delayed fruit at withdrawal from storage is riper, yellower and duller than the corresponding "immediate" stored fruit and in addition develops more serious scald and decay. The importance of eliminating all avoidable delay in storing cannot be too strongly emphasized.

Thirty-one to thirty-two degrees F. is the standard storage temperature for apples, and this has been found to be the best for long keeping of the fruit. Higher temperatures permit the ripening of the fruit to advance more rapidly than at 31 to 32 degrees F., with the result that the fruit at these temperatures reached the end of its storage life much sooner. In addition, the lower temperature retards most effectively the development of fungus decays and skin blemishes. For a

short storage period higher temperatures may be used without serious trouble, especially with the better keeping varieties, but for long keeping 31 to 32 degrees F. will best maintain the color, quality and texture of the fruit.

Apples should be withdrawn from storage while still firm, and in this condition can be held on the market in satisfactory shape for several days or weeks. If allowed to become excessively overripe in storage, however, they will break down very fast on withdrawal. Apples from 32 degrees F. will, as a rule, hold in better condition after withdrawal from storage than will comparable lots from higher temperatures.

There are several other factors affecting the behavior of apples in storage, but those discussed have been found to be of greatest importance, and their proper control will solve a large percentage of present serious storage difficulties.

POTATO GROWERS IN TROUBLE OVER NET WEIGHT LABELS.

THE net weight labeling law, which became effective September 1, is turning out to have a good many angles, some of which are proving rather troublesome both to food control officials and to manufacturers and producers of food products. The Denver Grocer in a late issue tells of the difficulty experienced by growers in correctly labeling sacks of potatoes and says that a protest against the application of the regulations to their shipments has been made to the proper authorities. The Grocer says:

"Claiming that the regulations of the United States Department of Agriculture forcing them to label sacks of vegetables and other articles and giving the net weight on each and every package shipped are too drastic, and that the producers of Colorado will suffer serious loss if the law is enforced, a protest has been lodged by a committee of growers from Weld county with United States Attorney Harry B. Tedrow.

"The committee called on the federal prosecutor and said that they represented hundreds of potato and onion growers in the Greeley district who are affected by the new law—an extension of the food and drugs act—but a regulation which has not been enforced until Sept. 1, although it has been a law for some time.

"The law says that it doesn't make any difference what is in the package, whether it be potatoes, onions or other root products, the grower must weigh them and attach a tag to the package giving the net weight before it is shipped. If the package is sold according to the number of articles in it, the exact number must be given. The Greeley committee sought to show the injustice done by showing that 3,800 cars were shipped out of the Greeley district alone last year, while the vegetable products last year were worth \$19,000,000 to Colorado.

"The Colorado growers do their own sacking as a matter of convenience, and ship to the consignees in all parts of the country. The new law will force the growers to install scales in their potato, onion and other fields and lose them time and money by the extra work. It entails the danger of the grower being haled into court for alleged short weight if the retailer is accused.

"The Weld county committee told Prosecutor Tedrow that they were willing to abide by all of the laws of the government, and will do so in this instance, but they believe it to be an injustice. They feel that they have not the time to put in scales and prepare to weigh every potato shipped out of the state this year. The members of the committee are seeking to have the regulation's strict enforcement withheld until such time as they can get ready to comply with the law.

"United States Attorney Tedrow says that the same conditions will exist in Arapahoe, Denver, Boulder, in fact, every producing county in the state, as to growers. He has already written to Washington asking for information on the subject. If the Department of Agriculture insists on strict observance of the law this year, it is likely that the growers will ask Prosecutor Tedrow to start a test case against some of them so the constitutionality of the act can be tried out."

Lancaster County, Pa., has raised the greatest pickle crop in its history this year, according to the local papers. The quality of the crop is very good, and some of the pickles are of enormous size. Competent authorities say that Lancaster is now the pickle center of the United States. The reason for the great crop is the fact that many of the farmers turned their tobacco fields into pickle fields.

United States Department of Agriculture.

OFFICE OF THE SECRETARY,

STATEMENTS OF QUANTITY DISTINCT FROM QUESTIONS OF BRANDING AS TO CHARACTER OF CONTENTS.

DEAR SIR: Replying to your letter regarding the interpretation of section (b) of Food Inspection Decision No. 154, this regulation was intended to exclude from the statement of the net weight of food products in package form all linings of packages, premiums which might be inclosed in the package of food, printed circulars, and similar objects sometimes inclosed. It was not intended to exclude brine, sirup, oil, or the usual condiments which are a necessary part of canned foods; the statement of the quantity of the contents may include such substances.

The regulations, Food Inspection Decision No. 154, apply only to the marking of the quantity of the contents, and are not intended to treat of questions of misbranding as to the nature of the contents, to questions of adulteration by mixing and packing water with the product, or of substitutions of cheaper and inferior substances for the product. Violations of this character are covered by different paragraphs of the act and are the subject of Food Inspection Decision No. 144.

Respectfully, A. S. MITCHELL,
Secretary Committee on Regulations, Net Weight and Volume Law.

"DRAM" OR "DRACHM" INTERPRETED AS FLUID MEASURE.

The letter quoted below is a reply to the following inquiry: We put up packages of food flavors holding 5 and 15 drachms and wish to know whether they can be labeled "Contents five drachms" and "Contents fifteen drachms," respectively.

DEAR SIR: The subject of your inquiry is covered by paragraph (d) of the regulations under the weight and volume amendment to the Food and Drugs Act (F. I. D. 154).

There appears no objection to the statement of 5 drachms, provided fluid drams are intended. Expressions of weight, however, should be in avoirdupois pounds, ounces, and fractions thereof, inasmuch as drams are units of troy weight. A statement reading "15 drams" is not in strict conformance with paragraph (d), inasmuch as 8 drams constitute 1 fluid ounce.

Please also note the exemptions for small packages given in paragraphs (j) and (k).

Respectfully, A. S. MITCHELL,
Secretary Committee on Regulations, Net Weight and Volume Law.

STATEMENT OF VOLUME ON PACKAGES CONTAINING MORE THAN 1 PINT OF LIQUID.

DEAR SIR: Replying to your letter asking whether a statement in fluid ounces is satisfactory where the contents of the package consist of more than 1 pint, the intention of the regulation was to require the statement in terms of the largest unit contained in the package, as "1 pint and 8 fluid ounces" or "1½ pints."

Respectfully, A. S. MITCHELL,
Secretary Committee on Regulations, Net Weight and Volume Law.

MARMALADES.

DEAR SIR: Replying to your letter relative to standards for marmalade published in Circular 19, you are informed that the bureau is now making a study of this question, and pending further information no action will be brought against marmalade made from clean, sound, properly matured and prepared fresh fruit and sugar (sucrose), even though the proportions of fruit and sugar vary within reasonable limits from those laid down in Circular 19, namely, 45 pounds of fruit to 55 pounds of sugar. As the bureau has not yet completed its investigations on this subject, no more definite statement regarding the permitted variation can be made at this time. The product must, of course, conform in name to the fruit used.

If new standards are drawn, a reasonable time will be al-

lowed manufacturers in which to dispose of goods which they now have on hand before action is taken against products not conforming to the new standards.

Respectfully, C. L. ALSBERG, Chief.

ARSENIC AND LEAD IN FOOD AND FOOD PRODUCTS.

DEAR SIR: For some time the Bureau of Chemistry has been investigating the presence of arsenic and lead in certain food products and has found that these metals are usually introduced into such products through the use of impure raw materials or from the apparatus or utensils employed in the processes of manufacture.

The poisonous properties of arsenic and lead are well known, and this bureau holds that food containing arsenic or lead, added in any manner, is adulterated, in that it contains an added poisonous or deleterious ingredient which may render the product injurious to health. Manufacturers of all food products or ingredients of foods are, therefore, warned to be on the lookout for the presence of arsenic or lead in such products and to take such precautions as are necessary to avoid its presence in the finished product or to secure its elimination therefrom.

Respectfully, C. L. ALSBERG, Chief.

THE LABELING OF CANNED SOAKED PEAS.

DEAR SIR: In the opinion of the bureau the use of a vignette showing peas in the pod would not be considered proper on a label for canned soaked peas, for the reason that it might lead the purchaser to believe the product to be canned fresh peas. There would be no objection, however, to the use of a pictorial design which would not mislead purchasers as to the nature or quality of the product, such, for example, as a vignette showing a dish containing shelled peas.

Respectfully, C. L. ALSBERG, Chief.

THE ADDITION OF TURMERIC TO PREPARED MUSTARD.

DEAR SIR: The addition of turmeric to prepared mustard is not prohibited, provided the coloring added by means of turmeric does not conceal damage or inferiority. Such inferiority might arise from deficiency in mustard or the substitution of charlock, starch, or other cheap filler for mustard. The presence of turmeric should in all cases be declared upon the label.

Respectfully, C. L. ALSBERG, Chief.

THE LABELING OF ARTIFICIALLY TREATED WATERS.

DEAR SIR: If salts are added to a natural water the quantity of salts added need not be stated, but the facts regarding such treatment must appear on the label in such a manner and in type of such size as to make it clear and not misleading. Such words as "fortified," "concentrated," "added salts," etc., do not convey the proper information to the purchaser and are considered misleading and objectionable. It would be entirely satisfactory, however, to say: "Contains added sodium chlorid," "Contains added sodium bicarbonate," "Artificially treated with sodium chlorid and sodium bicarbonate," "Fortified with magnesium sulphate," or to use any truthful legend of a similar import which conveys the proper information to the consumer.

Respectfully, C. L. ALSBERG, Chief.

CALIFORNIA FOOD SANITATION BUREAU.

The California State Board of Health has created a new bureau to be known as the Food Sanitation Inspection Department. The source of ptomaine poisoning will occupy the attention of this bureau to a considerable extent.

CORRECT LABELS FOR CALIFORNIA PEACHES.

Chief Chemist Alsberg in replying to a request for information regarding the terms "Lemon Cling" and "Yellow Cling" on canned peaches, has replied that a declaration of the varietal name is not required on the label, but where a name is given, however, it must be the true name of the variety. The "Lemon Cling" is the well known variety of peach grown in California and highly esteemed for canning. Should the words "Yellow Cling" be substituted on the label for "Lemon Cling" the product would be understood to belong to any one of the "Yellow Cling" stone varieties. Dr. Alsberg states: he is informed that practically all the peaches which are commercially canned in California are Yellow-Flesh Clings.

Recent Laws and Rulings

SERVICE OF POISONOUS FOOD.

(New York.) The New York Supreme Court has held, in the case of *Leahy v. Essex Company*, that there is an implied warranty in the sale of food of its fitness for consumption. In considering the law of this case it is well to mention the Connecticut case of *Merrill v. Hodson*. Both of these cases are recent, both involve exactly the same question, and yet one is decided exactly the opposite of the other. In the first mentioned case, the plaintiff brought suit against a restaurant keeper to recover for alleged poisoning which she claimed to have received from the chocolate pie which she ate in defendant's restaurant. In her testimony on the witness stand she said that she had eaten only a small piece of the pie for the reason that she found it to have a peculiar taste. The court held the restaurant keeper responsible for the poisoning on the theory that one making a sale of food for immediate consumption impliedly warrants the same to be fit for the purpose for which it is sold. In the latter case (*Merrill v. Hodson*) the plaintiff ordered "creamed sweetbreads" in defendant's restaurant and was served with a dish known by that name, prepared and ready to be eaten. The sweetbreads were not fit for consumption. Plaintiff, not knowing their condition, ate them and became very ill, such illness having the symptoms of poisoning. On this statement of facts her attorneys brought suit against the restaurateur, basing the case on the theory that a service of food in a restaurant for immediate consumption is a sale and that there is an implied warranty that such food is fit for consumption. The court, however, held that there was no implied warranty, that the food was not sold in the sense as is generally understood, but that the consumer merely had the privilege to consume what food she needed, and in so doing could not claim the benefit of an implied warranty that the food was fit for consumption. In this case the court entered judgment for the restaurateur, while in the New York case judgment was entered for the patron.

Leahy v. Essex Company. Merrill v. Hodson. 148 N. Y. S., 1063. 91 A., 533.

VIOLATION OF THE INSECTICIDE ACT.

(Federal.) Criminal prosecutions brought by the United States against James A. Blanchard and Company for violation of the Insecticide Act of April 26, 1910, c 191, 36 Stat. 331. The specific charges as alleged by the government were that the defendant company had shipped in interstate commerce "Fir Tree Oil," "Lion Brand Whale Oil Soap" and "Lion Brand Concentrated Kerosene Emulsion," and that none of these articles complied with the terms of the Insecticide Act. For instance, the government charged that the name "Fir Tree Oil" would lead the average person to believe that the article of that name contained oil of the fir tree, yet as a matter of fact it contained no such oil. As to "Lion Brand Whale Oil Soap," the charge was that the article contained inert substance, viz., water in greater quantities than contemplated under the law. With relation to the "Concentrated Kerosene Emulsion," the government charged misrepresentation through failure on the part of the substance to kill bugs and lice, as set forth and represented on the package label. The attorneys for defendant interposed demurrers to the charges as set forth above and the United States District Court, Eastern Division of New York, overruled the demurrers, saying that the counts are sufficiently and properly stated. The case, at the time THE AMERICAN FOOD JOURNAL goes to press, awaits trial on its merits.

United States v. James A. Blanchard & Co., 215 Fed., 258.

SALE OF PUTRID MEAT.

(Washington.) Action by Charles Flesscher against the Carstens Packing Company of Seattle to recover damages for injuries alleged to have been sustained by eating diseased dried beef. The case was founded upon negligence, it being alleged that:

"The defendant negligently and carelessly sold and delivered to Charles Flesscher, plaintiff herein, a certain piece or parcel of poisoned and diseased meat known as dried beef, which said meat was then and there unfit for human food and injurious to the life and health of a person eating it."

In submitting the case to the jury the lower court instructed the jury that the liability of the defendant was to be determined under the provisions of the Pure Food Act of 1907

(Laws 1907, c 211), providing in Section 1 (Section 5453, Rem. and Bal. Code):

"No person, firm or corporation shall, within this state, sell, offer for sale, have in his possession with intent to sell, or manufacture for sale, any article of food or drug which is adulterated or misbranded within the meaning of this act."

And section 3 (Section 5455, Rem. and Bal. Code):

"For the purposes of this act an article shall be deemed adulterated if it consists in whole or in part of filthy, decomposed or putrid animal or vegetable substance, or any portion of an animal unfit for food, whether manufactured or not."

Under these instructions the jury found for the plaintiff and the defendant Carstens Packing Company appealed to the Supreme Court, alleging the instructions as improper, inasmuch as plaintiff had brought his action relying upon the common law liability of the defendant for selling him diseased meat and the court allowed as instructions to the jury extracts of the statutory law of the state having application to the sale of impure and adulterated foods. The Supreme Court, in reviewing the case, reversed the holding of the lower court and found for the defendant on the ground that the instructions were not proper. The court said that where an action is brought to recover damages for the sale of adulterated foods the complaint in such action determines the character of the action, and where such complaint alleges only the selling of diseased meat unfit for human food it is error for the trial court to submit to the jury, as the law of the case, governing them in determining defendant's liability, sections of the Pure Food Act, prohibiting any person from selling adulterated food, defined to include meat unfit for food. The judgment reversed.

Flesscher v. Carstens Packing Company, 142 Pac. 694.

SOCIAL SURVEY EXHIBIT.

AN EXHIBIT showing the results of the Springfield, Ill., Social Survey will be held in Springfield on November 21 to December 2, inclusive.

This survey was made by the Russell Sage Foundation and under the direction of Mr. Shelby M. Harrison. The collection of the information was started in May of this year and covered a period of about three months, several experts supervising the collection of the information.

Springfield has the honor of being the first city in Illinois to have a social survey and this is probably due to the interest created among its citizens by the sanitary survey made in 1910 by the Springfield health department. The survey made of Springfield was the most complete of its kind ever made of any city in the United States and was accepted by the Russell Sage Foundation as a model for a small size city.

The survey idea has developed so rapidly during the past year that it has been almost impossible to supply experts to organize and conduct the work of collecting information. The Social Survey, in the true sense of the term, includes a study of all the conditions in a city which have to do with society in general; a study of the public health conditions, organized charity, schools, delinquency and dependency, labor conditions, municipal efficiency, criminology and other subjects. The Social Survey of a city may be said to be a diagnosis of its ailments and conditions. In order that a city can progress, it must first know its conditions as they are, as it is just as impossible to prescribe for a city as it is for a physician to prescribe for his patient without a proper and thorough diagnosis.

The state food department was called upon to assist in the "Food and Sanitary Survey" investigation and the information was collected by Mr. Oscar Lindstrom of the food department. Mr. Paul L. Skoog, assistant superintendent of the Springfield health department, who developed and directed the public health survey in 1910, assisted Mr. Franz Schneider, Jr., of the Russell Sage Foundation in the survey just completed.

We will doubtless soon begin to hear of remarkably high war prices on food in Europe. One report says that eggs in Hamburg, Germany, have sold at \$2.40 per dozen.

Food is as necessary as ammunition in war—ininitely more so in peace. Food is the most important single commodity in the world.

Washington, D. C., Correspondence

(From our Staff Correspondent.)

WASHINGTON, Sept. 30.—In every sense of the term, it is "between seasons" so far as the food and drug work of the federal government is concerned. The committee on standards, appointed now nearly a year ago, is not ready to make any sort of report. The net weight law went into effect on Sept. 3, too long ago to have any novelty as to the statute itself, and too soon to get any sort of line on what resistance there will be from those affected by it. It is taken for granted that before long somebody will discover that the administrative officials are undertaking to add something to the work of Congress and will take a case to court.

There are enough points, as indicated in previous correspondence, on which controversies in the courts can be based, but thus far there are no distinctly defined issues. The administration being in control of both branches of Congress, it is impossible for anybody to start investigations, such as marked 1911 and 1912 when the political control of the House of Representatives passed into hands not friendly to those administering the law.

The district organization of the Bureau of Chemistry appears to be working smoothly with P. D. Cronin of the solicitor's office out on the road most of the time, giving advice to district attorneys about the conduct of cases involving questions with which the average district attorney could not be expected to be familiar, no matter how long he had practiced at the bar before becoming the government's prosecuting attorney for the enforcement of the multitude of federal laws with which the ordinary citizen does not come into contact once in a lifetime.

It is assumed that the Department of Justice, before the October term of the Supreme Court enters the sear and yellow leaf, will bring the Coca-Cola and proprietary medicine cases up on appeal or certiorari or other legal process necessary to get the questions raised by the court of appeals in Ohio and the lower court in Iowa before the highest tribunal.

The fact, however, is that the European war has had a greater effect upon the heads of government officials than upon the ordinary citizen, probably because there is no pinching pressure of any kind behind the average official, such as the man in business feels because there is a war, and possibly some other things that may not be mentioned in a magazine which has nothing to do with politics. While the difficulties caused by the war continue, it is more than likely the government will not insist upon the business world giving a great deal of attention to questions which in ordinary times would be forced to early conclusion.

There has been a disposition on the part of food and drug manufacturers to mislead themselves about the work of the committee on standards. Owing to the fact that there are big questions in every phase of the subject, some have professed to believe the committee will not undertake to publish a set of standards to be used in determining whether a given food or drug is what it purports to be or merely an imitation of it. The members of the committee, there is every reason to believe, fully recognize all the difficulties and are bending their energies toward producing tests to be applied that will make it necessary for manufacturers to give more serious thought to the subject than many of them now seem to think necessary.

Dr. Alsberg's course, as chief of the Bureau of Chemistry, has been generally approved, but it must not be forgotten that he is a chemist and that chemists, as a rule, think there should be a standard by which everything should be judged. From what can be learned, the committee is proceeding on the assumption that the food and drugs label law was intended to be what it is popularly called, the pure food law. In other words that the regulation of commerce under its terms is to be something more than a mere prevention of gross frauds not punishable or preventable under state statutes until after the fraudulent articles of food or drugs have been so intermingled with the commerce of a given state that the laws thereof have no control over them. Broadly and generally speaking, the members of the committee want the federal statute to be so effective that mince pie will be the same in Texas as it is in Maine because the federal regulations will be such as to make it unprofitable for any manufacturer to turn out a filler not up to a standard known from one end of the land to the other.

Unless all gossip as to how the committee is proceeding in its work is unreliable, the members are going ahead with

a good deal of caution so as to avoid the laughable blunders into which the Bureau of Chemistry fell years ago when standards were made that were patently worthless because obviously intended to accomplish, by indirection, what could not be done directly.

Since that time the chemists who have been working on the subject have learned wisdom. They have learned that while nearly every regulative law of the United States, under the commerce clause of the federal constitution is a false pretense, the falseness must not be so obvious that courts cannot fail to observe it even when they close their eyes. They have learned from the lawyers that they must put forward something that looks like a regulation of commerce instead of being a bald exertion of the regulating power whereby the federal government usurps the police or other power of every state in the Union and enlarges the constitution by whatever amount it takes from the states.

Those interested who may think it inconceivable that a Democratic administration, composed of men supposed to be devoted to the doctrine of states rights, whatever that nebulous thing may be, would not do such a thing, have full warrant for taking another thought on the subject. When it comes to grabbing power, one human being is a good deal like another. Besides, who has ever clearly defined the limits of federal and state power, or who has ever been able to get an officer of the federal government away from the notion that if the states will not do what he conceives to be their duty, Divine Providence has indicated him as the one to do what he knows is the righteous thing?

Food and drug manufacturers may just as safely ignore the work of the committee on standards as they may ignore the Federal Trade Commission, which is to pass on the question, "What is unfair competition."

President Wilson has announced that he will not be ready to appoint the members of that body until along in December or January. He thinks he will need that much time to select the men to whom will be committed the task of telling those engaged in selling goods in more than one state what they may or may not do to promote their business, all on the theory that competition is a good thing unless carried to its logical conclusion which is the destruction of all competition. Every food and drug manufacturer who tries to protect those to whom he sells by fixing the resale price of the article he places on the market, sooner or later, will be brought before the Federal Trade Commission to answer the charge of a competitor that he is using unfair methods to gain and hold trade. This will occur, although, as a matter of fact, all he is doing is to get the whole benefit of the money he has spent in advertising his goods and creating a demand for them by making it possible for the dealer who has laid in a good stock to realize a profit instead of having to compete with the man who is using the well-advertised product to draw people to his shop by offering them a standard article at less than a standard price.

It is probable that food and drug manufacturers, in less than a year, will be forced to give more attention to the new law than to the food and drugs act. Under the trade commission law a manufacturer can be wholly put out of business unless he submits, in nearly every detail, to the ideas of the board of five men soon to be appointed to decide what is "unfair competition."

THIS YEAR'S CRANBERRY CROP.

The Cape Cod cranberry crop for 1914 is estimated by a United States Department of Agriculture field agent from replies of growers to be 8 to 12 per cent larger than that of last year. The Cape Cod Cranberry Growers' Association estimates the crop at 16 per cent larger, which would indicate 380,222 barrels.

Figures for previous years, of total shipments in barrels, were furnished by a large cranberry firm and are believed to be substantially correct, viz., 1910, 287,000; 1911, 273,000; 1912, 327,000; 1913, 327,778. The export trade in American cranberries is very small, only a limited quantity having been shipped each fall to Europe, mainly for consumption by Americans residing in London, Paris, Berlin and a few other leading cities.

Indiana Correspondence

(From our Staff Correspondent.)

INDIANAPOLIS, October 1.—The outstanding feature of pure food regulation in Indiana during September, outside of the big exhibits at the annual state fair, was a furtherance of the campaign for cleanliness of employes of food-handling establishments. The state's pure food and drug department has touched on this phase of its work at various times, but last month it started to give the problem closer attention. Further development of the plan to educate municipalities throughout Indiana into providing better meat-slaughtering conditions also was noticeable. The month's activities in this direction included interesting correspondence between the state authorities and the mayors of all Indiana cities and towns and the local health officers. Urgent admonitions to further plans of municipalities, particularly in the battle to prevent diseased pork being thrown on the market, went forth from state headquarters and received not only a kindly attention but a co-operative attitude in practically every county, according to returns now coming in to the state pure food authorities.

Advocacy of a systematic attempt in every county, to eradicate diseased persons from positions where food products are handled, was carried to health officers in the state with the following communication from the state department at Indianapolis:

"The Sanitary Food Law prohibits the employment of diseased persons in food manufactories, grocery stores, restaurants, bakeries, etc. This is, we believe, the most important provision in our food laws. It is also the most difficult of enforcement.

"As a health officer, do you not think it highly advisable that all physicians should report cases of tuberculosis, typhoid fever, diphtheria, epidemic sore throat and venereal diseases in employes of food establishments or their immediate family to the health officer, in order that he may take the steps necessary to prevent spread of the disease through the food supply? We know of at least six epidemics of typhoid fever in Indiana in 1913 which were spread through the milk supply. Epidemic sore throat is commonly carried by milk.

"It seems impossible to expect dairymen, grocers, butchers or bakers to exercise the good sense necessary to protect the consumer of the food they handle. Every day we see men handling food who are physically unfit for the work. You, no doubt, have instances in your own practice.

"Now, it is illegal for such men to work. Furthermore, it is illegal for the employer to allow them to work. The Pennsylvania Railroad requires a rigid examination of all of its employes every three months. Do you not think we ought to require as much of our bakers, butchers and restaurant employes? How can we do it? How can we enforce the law? Remember that we have the statute, although, as yet we do not have the means. Help to enforce it effectively. Have you any suggestions which may help? What do you think of the idea of making disease among food handlers reportable?

"Under the Pure Food and Sanitary Food Laws, you are a food inspector and a deputy of this department. You are also charged with enforcement of the cold storage law. Your duties as health officer may not give you as much time as you would like for food control work. We know, however, that you appreciate the necessity for doing this work and we hope if you cannot give your personal attention to it as much as you would like, that you will use every effort to secure the appointment of a deputy who can give his entire time to the regulation and protection of the food supply and the enforcement of the various state laws which have been passed for the protection of the consumer."

To local health officers throughout the state the following letter outlined the department's attitude on the diseased meat problem:

"In May last I wrote you concerning our plans for improving the conditions under which the meat supply of the state is slaughtered and prepared and asked for your co-operation in getting this matter before your mayor. I also enclosed a stamped addressed envelope in order that you might make use of it to advise me of what you had been able to accomplish, either by your own efforts or through the co-operation of your mayor.

"Thus far, I have not heard from you. It may be that the local situation is in such excellent condition that no further regulation of your meat supply is necessary, but if that

is the case, you are blessed far beyond other communities.

"Just now is the hog cholera season and no doubt, as in years past, many hogs suffering from cholera will be killed and sold for food, not only in violation of the law, but of all stands of decency. Cannot we do something to safeguard the meat supply? Make me some suggestions, help us to handle this problem which we are forced to view as the most important of the many food questions before us. Will you kindly keep watch of the hog cholera situation, and whenever you learn of shipments of cholera hogs to this or other markets, advise me by wire in order that they may be intercepted at the yards."

The state officials wrote each mayor in the state as follows:

"We are approaching the hog cholera season and within the next three months many thousands of hogs suffering from cholera will have been sold, slaughtered and used as food in this state, in every case in violation of the law and of common decency. The situation does not now appear to be as serious as it was a year ago. Nevertheless, hog cholera is prevalent and your market is bound to receive diseased animals unless special pains are taken to exclude them.

"Will you advise me whenever you know of shipments of diseased hogs, either to or from your city, in order that they may be intercepted and the shipper perhaps prosecuted for violation of the laws? The sale for food of diseased hogs and cattle must be stopped and we trust in our efforts to do this we may receive your hearty support."

Experts here say food prices throughout Indiana, as in other states, gradually are descending, due to the lack of demand abroad and the fact that financial retrenchment in some quarters at home has made the demand at home also much less. This is strikingly exemplified in the Indianapolis market, where the most unusual supply of every conceivable commodity is being displayed for purchasers at fair prices.

Indianapolis believe that the local market is the largest in the country—those in larger cities generally being divided. The market never has been so completely filled with all sorts of produce and edibles. All vegetables are cheaper. There are unusual quantities of beans displayed for sale. Potatoes are on the decline in price just now—a bag selling for \$1.50 that a short while ago brought \$3. Sugar is down from its highest point and canners here attribute this in some measure to the fact that they have used less sugar in their season's work. The same condition has tended to bring down the prices of all fruits, because the buying has been a little restricted and fruit men have sought to make the total price of sugar and fruit more nearly equal to what it was last year.

The fruit supply in Indiana this year has been above the average. Just now the market is full of unusually fine apples, which have reached the market this season. A fair supply of plums, a fair crop of pears, a good crop of peaches, plenty of grapes and a big and extraordinarily fine melon crop have been evident. Regardless of this, it is also apparent that the amount of fruit canned in former years in Indiana has not been approached this year. Many housewives have abandoned their former efforts along this line until the price of sugar reached its normal level again.

Experts here believe the state markets are receiving better oysters than ever before, due to the lack of demand in Europe.

Of 128 samples of foods examined at the state laboratories during August, forty-six were found illegal. In this number were eighteen samples of vinegar, fifteen samples of milk, six samples of ice cream, five samples of cream and two samples of temperance beers. Twenty-seven food handling establishments were condemned by the state authorities under H. E. Barnard, state food and drug commissioner, during the month. Fifteen of these were bottling works. Only two dealers were fined for handling illegal cream or milk during the month, an unusually low record in the face of the wave of bad milk that has been "inundating" Indiana during the past several months.

Bread made from pea flour is a new wrinkle in food, recently introduced in Germany. The flour of peas has been utilized in Sweden and some other localities; but competent authority does not think Germans will take kindly to it, although in Germany as here there are plenty of people who will try any food-fad for awhile, at least.

WHY SACCHARIN WON

The Long, Contested Suit of the Monsanto Chemical Works of Saint Louis, Manufacturers of Saccharin, Is Finally Decided in Its Favor.

The Supreme Court of the State of Missouri in handing down its *unanimous* decision that Saccharin is not deleterious to health, and declaring null and void the statute prohibiting its use recognized the principle that the amount used must be considered. This, the Supreme Court of the United States also did in its decision in the famous Bleached Flour case.

An excessive use of anything is harmful, whether it be sugar, salt or water.

SACCHARIN is much more desirable than sugar as a sweetening agent for soft drinks from any view point: (First)—Healthfulness; (Second)—Economy.

The Food Commissioner of the State of Tennessee declared in a recent statement, that "all soft drinks containing as they do, sugar, are bad for the stomach, etc."

This is a strong argument for SACCHARIN. In using SACCHARIN the danger from the use of sugar is eliminated, and the infinitesimal amount of SACCHARIN that is required to sweeten cannot possibly be harmful to any one, either adults or children.

Any physician will tell you that we are all eating too much sugar. When it is considered that practically 20% of the people of the country are either afflicted with Kidney troubles or have a tendency to be so afflicted, and that sugar is a known poison to such people,—the majority being unconscious of the fact—it leaves no room for doubt that SACCHARIN is the proper and most desirable sweetening agent for soft drinks.

Use SACCHARIN to sweeten and do not hesitate to declare its use on the label. **Such declaration stamps your goods as being healthful.**

MONSANTO CHEMICAL WORKS

Manufacturers of Saccharin

ST. LOUIS

Branch: Platt and Pearl Streets, New York

Michigan Correspondence

(From Our Staff Correspondent)

LANSING, MICH., Sept. 30.—The arrest of three Michigan food inspectors furnished the most interesting and exciting event in Michigan food circles during the early part of September. The three food inspectors were taken into custody by the police of the city of Detroit on September 5. They are charged with having extorted money from a poultry, butter and egg dealer in Detroit. The arrest came about through a trap set by the prosecutor of Wayne county. It seems that the three inspectors have been taking samples of goods handled by the dealers, submitting them to Lansing for analysis, then informing the dealers that the analysis showed them to be bad and that they would have to "come across" or they would condemn everything in their store. On August 22 one dealer claims to have paid each man \$25.00. Later, each of the three demanded \$50.00 more. It was on the second demand that the dealer protested to the prosecutor.

The prosecutor detailed two detectives to investigate the case. The inspectors came to the store again and demanded the money. The dealer paid them in marked bills while the detectives were in hiding. As soon as the money changed hands the detectives came out of their hiding place and the arrests followed. All three have confessed to their part in the alleged grafting and are now released on bail awaiting trial. Commissioner Helme immediately discharged them from the force. In commenting on the affair, Mr. Helme expressed regret that such a thing should have happened and laid the cause to the low political tone of Detroit. He informed the prosecutor that he would do all in his power to aid him in bringing about a conviction of these men.

The inspection of weights and measures in the Detroit public markets was temporarily held up during the early part of September, owing to the fact that no new standard measures were available. In the meantime the force inspected the dairies and creameries around the city.

State and county fairs have kept the inspection force busy during most of the past month. At the Western Michigan Fair held at Grand Rapids during the first week in September and the State Fair at Detroit the following two weeks, the department was well represented. H. D. Wendt, in charge of the educational scoring division, had charge of the scoring of the cheese and butter at both fairs. Two food inspectors looked after the sanitary conditions of the various food and drink stands. The absence of the fake orange cider stands, with their grinding mills and presses in conspicuous places to emphasize the fact that the beverage you bought there was true orange cider, was noticeable. Hamburg steaks were quite free from sulphites. Food products of all kinds were kept covered from dirt and flies through the activities of the inspection force. The department's car containing the educational exhibits on fake medicines, cure-alls, etc., foods, clean milk and the tuberculosis exhibit in dairy cattle was located at both fairs during their entire three weeks. This is the same car that was hauled about the state during the month of August as a part of the "Pure Food Special."

Exception is being taken by the Michigan department to the custom of stating the net weight on cans of syrup, etc. It has been found that many cans of syrup shipped into Michigan are labeled in terms of pounds and ounces. The size of the cans leads one to think that they are gallon cans, although actual measurement shows them to be over a pint short of a gallon. A consumer calling for a gallon of syrup is often handed one of these cans. It is here that the Michigan department contends that the misrepresentation takes place and the fact that the net weight is stated in terms of pounds and ounces aids in the misrepresentation. It is contended by the department that it is customary for the consumer to buy syrup in gallons, quarts, pints, etc., and therefore the net volume of the container should be stated rather than the net weight.

Commissioner Helme has appointed a special fruit inspector during the fruit season, to look after the enforcement of the fruit and vegetable act passed by the last legislature. Four fruit farmers have been haled into court in the western part of the state for failing to pack their fruit properly. They were caught packing green and small fruit in the bottom of the package and then topping the package with a layer of fine fruit.

Dr. J. S. Abbott, chemist in charge of the state and federal co-operative control work of the United States Department of Agriculture, paid the Michigan food department a visit Friday, September 11, in the interest of co-operative work. Commissioner Helme and State Analyst Shannon both hold commissions under the United States Department of Agriculture. Plans are being outlined so that State Officials can work more efficiently with the federal department in the enforcement of the pure food law. It is believed by the Michigan officials that the creation of the new division in the federal department fills a long felt want. It has been customary for some time past for the United States Department of Agriculture to commission certain state officials, but there has always been something lacking in their co-operative work. This new division, headed by Dr. J. S. Abbott, will supply this missing link between the state and federal authorities and a much better enforcement of both the national and state food laws should come of it.

SHALL WE BE UNIFORM OR RIGHT?

By J. W. HELME, State Dairy and Food Commissioner,
Michigan.

IN the winter of 1913 our legislature was in session and I had before it a bill providing that the net weight of food should be stamped upon packages. On March 3, the United States Congress passed a law providing for the statement upon all food packages of net weight and inasmuch as my bill had not yet passed the Michigan legislature, I caused it to be amended by making it almost precisely uniform with the Federal law. I believe in the uniformity of state and national legislation provided, of course, that the national legislation is right and proper, but I would much rather be right than be uniform. How hard it is to be uniform I will cite in this article.

The Bureau of Chemistry has the right to put out service regulations and virtually construe and really amend and alter the federal pure food laws, while we poor fellows in the states are not able to amend our laws but have to wait for the legislature to do that for us. An effort has been made by the federal government to have uniformity in regulations but it seems to me that the method pursued will not tend to bring this about. Food Inspection Decision No. 154 construes and amplifies the Federal Net Weight Law. In this regulation appears the following:

"(f). The quantity of solids shall be stated in terms of weight and of liquids in terms of measure, except that in case of an article in respect to which there exists a definite trade custom otherwise, the statement may be in terms of weight or measure in accordance with such custom."

If this regulation had stopped there we should have had a very good definition of what the law should be, but unfortunately the following addition occurs: "The quantity of viscous or semi-solid foods, or of mixtures of solids and liquids, may be stated either by weight or measure." This clause to my mind virtually nullifies the purpose of the law.

Whenever we construe a law the proper way to get the right construction of it is to first ascertain and agree upon its object. What is the object of placing the net weight or net measure of food upon food packages? Clearly to inform the consumer how much food there is in that package so that he may buy intelligently. Now any information placed upon the package that gives him no definite idea of what he is buying nullifies the purpose of the act. Suppose he goes into a market and buys a basket of peaches which is labeled 13 pounds. Will he have any idea of how many peaches he is getting? Clearly not, because he is in the habit of buying peaches by the bushel and peck. Tell him what fraction of a bushel or peck is in the package and he knows then whether or not he is paying an exorbitant price.

Under the decision above referred to makers of corn syrups and molasses are labeling their cans with the net weight and not the net measure. Did you ever hear of a consumer going into a grocery store and calling for five pounds of molasses? I never did. They go in and ask for a gallon or a half gallon or a quart. Yet the manufacturers of syrups and molasses are permitted under the federal law to label cans as ten-pound and five-pound cans and thereby they convey to the

consumer no adequate idea of how much syrup there is in the can.

I asked my wife the other day how much molasses she would get if she went down to the grocery and got a ten-pound can. She at once figured on the old familiar rule that "a pint is a pound" and that she would get five quarts of molasses, when as a matter of fact she would get less than three and a half quarts.

I found out recently that it was quite common for consumers to go into grocery stores and ask for a gallon of corn syrup. The dealer would set them out a can marked "Ten Pounds" which is over a pint short of one gallon; thereby the consumer was deceived. But this is not the end of it. I found that after the consumer had emptied the can he would send it back to the store to buy a gallon of molasses in bulk and thereby he was again short measured.

It seems to me that the proper construction of the net weight law is that each package of food should be labeled with the net weight or net measure according as that particular article is commonly sold. If molasses is usually sold by the gallon the package should be labeled in gallons and quarts; while breakfast foods like rolled oats which are generally sold by the pound, should be labeled in pounds and fractions thereof. Packages of peaches should be labeled in bushels and pecks while a package of oranges should be labeled by numerical count. Any other construction of this law defeats its object which is to inform the consumer intelligently how much he is buying. While I dislike to make any rule that conflicts with the federal authorities, in this case I prefer to be right rather than to be regular and I am notifying all shippers of molasses and other syrups that the net measure in gallons and quarts must be stamped on their packages rather than the net weight. This will not conflict with the federal law which allows either method to be used but I am in hopes that the Bureau of Chemistry at Washington will see that in permitting the labeling of syrups by weight they have committed an error and that they will amend their regulations so as to preserve the object of the law.

"ADSUKI" BEAN MAKES GOOD FLOUR.

A plant immigrant from Japan that seems likely to prove a most desirable addition to American agriculture, is the adsuki bean, which has been successfully grown on the government's farm at Arlington, Va., and at many other places. Its most valuable feature lies in its large yield of seed. Owing to its texture, the bean is easily ground into meal or flour and has proven far superior to any other bean for that purpose. Its flavor is delicate and it lacks any objectionable "beany" taste. The adsuki bean is a most popular food in Japan, and there seems no reason why a food so rich in protein should not become popular in the United States.

The first adsuki bean brought to this country most probably was the "red-seeded bean," which Commodore Perry brought back in 1854 after his famous trip to the Far East, when he first established communication between this country and Japan. It has not been, however, until comparatively recently that the bean was experimented with in a scientific manner in America. In 1891 the Kansas Experiment Station had the beans submitted to several housekeepers for trial, and their recommendations of it were in general most favorable. The United States Department of Agriculture is now giving a detailed description of its experiments with the bean in a new bulletin (No. 119), "Five Oriental Species of Beans."

The average yield per acre of the best varieties of the adsuki bean at the government's farm has been about 25 bushels. The bean is a summer annual requiring about the same climatic conditions as the common bean. The plants are bushy in habit, growing from 1½ to 2 feet high, according to variety and soil. The beans are not only prolific, but ripen evenly and do not shatter readily. It has been evident, however, that these beans cannot compete with either cowpeas or soy beans as hay producers. Their initial growth is slow and their total yield of herbage inferior.

In Japan the adsuki commands a higher price than any other bean, the varieties with maroon-colored seeds being most largely used. In every Japanese city are shops where adsuki beans and adsuki-bean meal are sold, and among the most common cakes and confections are those made wholly or in part from adsuki-bean meal.

Adsuki-bean meal is sometimes prepared simply by grinding the dry beans and then removing the seed coats with sieves. More commonly, however, a wet process is employed. The wet process seems to vary somewhat in different parts of Japan, but consists essentially of four stages:

- (1) Boiling the beans until soft, usually after a preliminary soaking.
- (2) Crushing the cooked beans.
- (3) Removing the skins by forcing the mass through sieves or by putting the bean paste in cold water, when the skins are easily separated.
- (4) Drying the bean paste.

A modification of the above process is to remove the seed coat from the soaked and parboiled beans before they are crushed. In boiling, the red color of the seed coats dissolves, and on this account the water is sometimes changed once or twice. The final product is somewhat reddish, however. The bean meal in whatever way prepared is eaten in soups and gruels of various kinds, often sweetened. It is also used for making various kinds of cakes and confections.

Adsuki beans are also eaten popped like corn, as a coffee substitute, and candied by boiling in sugar, the last product being called amanatto. The flour is also used for shampoos and to make facial cream. The use of beans to make sweetmeats seems to be purely a Japanese invention, as there are no similar foods used by Europeans or Americans.

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Minnesota Correspondence

(From Our Staff Correspondent)

ST. PAUL, September 30.—There have been a number of changes in the personnel of the Minnesota Dairy and Food Department's operating force, of officials during the last few months.

Mr. I. O. Storvick, secretary of the department, and the man who has given particular attention to the dairy end of the department's work, has recently resigned and entered the Dairy Division of the Bureau of Animal Industry, U. S. Department of Agriculture. Mr. Storvick will have his headquarters at Albert Lea, Minnesota, and the field of his labors will be in southern Minnesota and northern Iowa. Mr. Storvick has usually had charge of the monthly judging in the butter contests which are held here to promote the quality idea amongst the state's creameries.

Mr. Fred O. Johnson is the new secretary, having held this place previous to the present administration, when Andrew French was commissioner. Mr. Johnson is a graduate of the Agricultural College and has been an inspector for a number of years and knows the field thoroughly. The department is fortunate in having a man so well qualified and so conscientious to step into Mr. Storvick's place.

The department's working force is probably larger now than ever before. A number of additions have been made during the past summer. Among the new incumbents are Mr. John M. Melin, an agricultural graduate, who will inspect creameries, O. F. Piehl and George W. Norman, who will join the force of dairy experts.

In the food inspection of the Duluth district Mr. Robert North, a pharmaceutical chemist, has recently taken charge.

Mr. Henry Shields, dairy barn and herd inspector, has been working with Mr. F. W. James of the St. Paul City Health Department in arriving at a system of co-operative scoring. The score card which has been worked out is very similar to the one used by the state department, except that it makes a record of the temperature of milk as delivered to the consumer and also the bacteria count per cubic centimeter. While the City Health Department has no legal standard for bacteria count, it usually passes any milk with less than five hundred thousand bacteria per cubic centimeter, provided the proportion of B. Coli is not too high. The score card for inspection of dairy stores, groceries and meat markets has not yet been settled upon. Mr. Shields has been at work in his local field for some years and is well acquainted with all angles of it.

The St. Paul city ordinance which requires all milk to be sold in bottles has facilitated the work of inspection considerably, because it dispels any question of the fairness of sample taking, which question was always present when samples were taken from milk in bulk. Also when the samples are taken from a store's stock there is not the danger of mixed milk and loss of identity because the bottle is one of an original package and usually has the bottler's name on the cap.

The laboratory end of the Dairy and Food Department has also undergone some changes of late. They have recently equipped a complete laboratory for bacteriological investigations in connection with the chemical work. This will be operated in co-operation with the St. Paul branch of the Federal Food and Drug Inspection Laboratory which fortunately is located in the same building and which is in charge of Dr. E. H. Goodnow.

Dr. G. W. Stiles of the Bureau of Chemistry spent several weeks during the summer in getting the laboratory started and getting data on a number of food problems of local interest. The general work will be conducted by Mr. Oscar L. Evenson, who has recently completed a post-graduate course in bacteriology at Columbia University and who has had also chemical training and experience in industrial fields.

Mr. Guy G. Parkin, who has been analyst for the last three years, has recently purchased a creamery and ice cream factory at Owatonna, Minnesota, which he expects to operate along scientific lines. The city milk supply will be handled in crown seal pasteurized-in-the-bottle containers which is the only real successful and safe method of pasteurizing. Mr. Parkin expects to work hand in hand with the city health authorities and Owatonna may congratulate herself in having a man of such training and ability come to take charge of

the local milk supply. Mr. Parkin is succeeded by Mr. Henry Hoffman, a graduate of the chemical department of Minnesota University.

Mr. Earl W. Pettijohn has also left Dr. Hortvet's staff of chemists to return as instructor in food chemistry at Minnesota University. He is succeeded by Mr. Clarence G. Sutton, a recent graduate of the University of Wisconsin.

Dr. Hortvet is now preparing his biennial report of work done in his laboratory. The force has worked on a number of original chemical investigations in addition to considerable collaborative work done with the Association of Official Agricultural Chemists on new methods, besides the voluminous amount of work in the routine analysis of food samples sent in by the inspection force.

Commissioner Joel G. Winkjer was recently in conference with Mr. B. H. Rawl, chief of the United States Dairy Division, and Mr. L. M. Tolman, chief of the Central District for the United States Bureau of Chemistry. They discussed a number of food problems that are peculiar to this local section, but no plan of procedure has been given out as yet.

The State Dairy and Food Department had an educational exhibit at the Minnesota State Fair recently held. Besides a comprehensive food exhibit, the department featured a cream-cooling device and demonstrated its use in the dairy building and also distributed circulars showing how they may be put on the farm. The device is a simple one, consisting of wire frames to hold milk cans in place. The frames are anchored to the bottom of the water tanks through which the cooling stream flows continually. The proper care of cream is a basic step in any educational plan for promoting butter making.

Mrs. Julian Heath of New York City, national president of the Housewives' League of America, addressed the women during fair week on the subject, "Spending Your Husband's Money." She deplored the educational methods of our domestic science schools in teaching our girls to make fancy dishes and not instructing them how to buy so as to get the most for their money in foodstuffs.

An action against the Crescent Creamery Company of St. Paul alleging discrimination in cream prices between various localities, has been instituted by County Attorney William H. Cherry. It is alleged that the company has been paying two cents more for cream at Hancock, where there is another creamery, than at Clontorf, where there is no creamery. The State Dairy and Food Commission will furnish the evidence on which the suit will be prosecuted.

WOULD CREATE NATIONAL MARKETING COMMISSION.

An advice from Washington states that Representative Goodwin of Arkansas has introduced in the House a joint resolution authorizing the President to appoint a National Marketing Commission, to be composed of 25 members, 15 of whom shall be farmers and 15 of whom shall be selected with reference to their eminence in commerce, law, finance and transportation. The resolution provides that this commission shall meet in Washington at a time designated by the President and "adopt a plan of action for the effective organization of the states, counties and localities of the United States for the economic distribution of the products of the farm, with power to act in so far as affecting individuals and organizations that shall elect to become a part of this national marketing system."

Mr. Goodwin pointed out that it is patent that there are defects in the economic system of the United States which affect adversely the producers and consumers of agricultural products. Recent exigencies brought about by the European war have largely accentuated this adverse condition.

"It is recognized," said Mr. Goodwin, "that the organization for the distribution of farm products should begin with the actual producers and not be done altogether through governmental agencies. The present abnormal conditions present an opportunity not only for the temporary solution of this problem, but also for the permanent organization of the agricultural forces of the United States."

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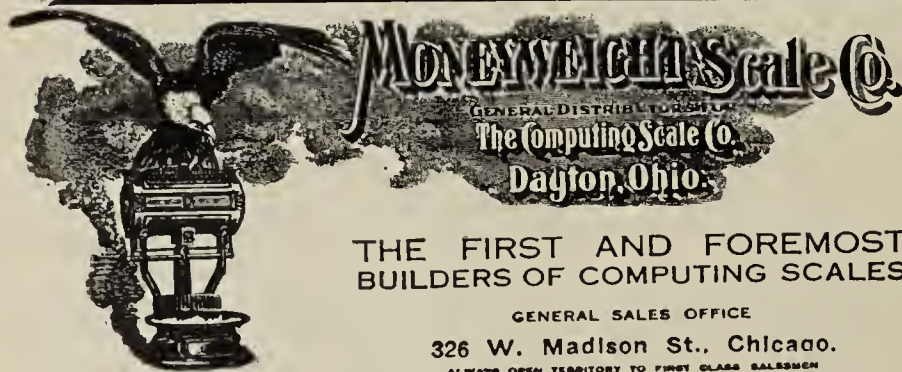
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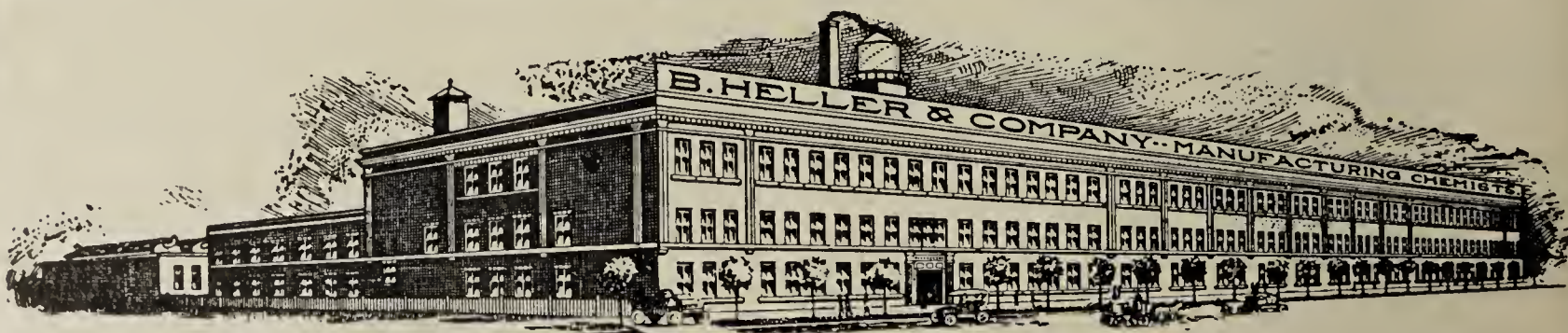
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According to Department of Agriculture Bulletin No. 118: Apply 0.62 Borax to every 10 cubic feet of manure. Apply Borax particularly around edges; sprinkle with 2 or 3 gallons of water. This treatment should be repeated with each addition of fresh manure. Flies lay their eggs in fresh manure. Borax prevents their hatching.

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New York Correspondence

(From Our Staff Correspondent)

NEW YORK, Sept. 30.—The four new open markets which aim to bring producer and consumer closer together and play a part in solving the problem of a high cost of living were opened on September 1. They are located at the Manhattan, Queensborough and Harlem Bridges, and the Fort Lee Ferry. It is estimated that 100,000 people patronized them on the opening day. The markets are open to all, rent free, with the proviso that the stand keepers maintain clean stores and do not haggle with customers. For those who wish to sell fish and meats permanently, ice-boxes will be built. The matter of delivering goods bought at the free market is one that the committee has under consideration. Commissioner Hartigan of the Bureau of Weights and Measures has received an order from truckmen who have about thirty teams idle and who are willing to establish a delivery system east and west at a maximum charge of ten cents.

A few days after the opening of the market a report reached the Open Market Committee that some of the foodstuffs offered for sale should first be inspected as certain dealers were disposing of canned goods that had long been on their shelves. It was also charged that speculators and bogus farmers were exploiting the people at the city's market. One alleged farmer was found who had hired a farm truck and bought inferior vegetables and stuff at one of the old markets and sold it at the free market. An official who watched the development of the free markets said that unless some rigid measures were adopted the markets would become the dumping ground for unwholesome foods and left-over vegetables. As a result of the charges made, the Health Department and the Bureau of Weights and Measures sent inspectors to investigate and to exercise a supervision over every dealer. In one day they confiscated forty counterbalances and twenty spring scales and one hundred and sixty weights that were short from half an ounce to two ounces, in addition to a number of short weight pails, baskets and measures.

The fishermen and farmers of New Jersey are willing to bring their products into the new markets providing they get a square deal. Monmouth county fishermen say that fish can be sold in the New York markets within less than twenty-four hours after being caught. They claim they do not get fair treatment at Fulton Market and further, New Yorkers at present do not get fresh fish. The farmers say that they ship comparatively little produce to New York because they cannot ship so that their produce goes by a direct route to the consumer. The present method by which the produce reaches the market is from farmer to buyer, usually at the nearest village, to commission men to retailer and finally to the consumer. It is believed that a city bureau to supervise market accounts is required in order to ascertain information as to prices and the value of foods and to devise means of bringing the consumer and farmer together.

In the last few days considerable opposition to the free markets has developed by some of the city officials who not only question the legality of at least two of the four open markets, but they dispute the right of Borough President Marks to establish and operate them. The borough president has already obtained \$38,027 for physical improvements of market places and he now asks for \$29,800 with which to pay salaries. In this connection Comptroller Prendergast said:

"Mr. Marks suggested to the Board of Estimate that positions amounting to an annual cost of \$29,800 should be immediately established, for employees to care for the market. I stated, and I now repeat, that the Board of Estimate must decide upon two courses. First, is it prepared to immediately establish a permanent market system? The other is, to what extent is it going to encourage and maintain a temporary system? I called attention to the fact that the markets so far started have in nearly all cases been established without warrant of law. I took the stand that if the city is to provide a place for the people to sell their wares these people should pay a certain fee for the privilege and that it is unfair to the other dealers who have to pay rent and taxes to be exposed to the competition of people who do not."

The current opinion in official circles seems to be that the free public markets are only temporary and set up to meet the recent sharp advance in the cost of food products due to the war. As soon as the present stress is over people will not wish to dispense with the middleman. They will go back to

the small grocer and delicatessen dealer for the sake of convenience of access and delivery. Public markets when put on a self-supporting basis, have not been well patronized in this city. It is unfair to support free markets at public expense for more than a limited period; besides, they do not attack the problem at its root, which is one of providing quick transportation facilities.

At least 150 clubs have been formed in New York City composed of from fifteen to twenty-five persons each for the purpose of solving the high cost of living so far as eggs, butter, smoked meats, potatoes and domestic fruits are concerned. These foodstuffs are obtained through the food products department of a local express company. The company sends out a list of prices every Monday morning, giving cost of articles for the current week.

Twenty Bronx retail bakers called on the district attorney of that county to discuss complaints that the bakers are failing to comply with the Brooks law and label the weight on each loaf of bread. The Bakers' Association claimed that the law did not call for a label giving weight on bread, though the interpretation of the State Superintendent of Weights and Measures said it did. The case promises to be one of considerable importance.

Backed by unlimited means, the consuls general of Great Britain, France and other foreign countries, located in this city have become active commercial agents and they are in the market for flour, wheat, sugar, beans and rice. The National Sugar Refining Company reports an inquiry for sugar from England, and this is the first time that country had entered the National Refining Company's market. The demand for rice has sent the price up 2 cents within the last few days. Rotterdam cabled New York that all contracts are cancelled on account of the war. The Merchants' Association of New York has received this cable from the American Chamber of Commerce in France: "Pressing offers here large purchases all kinds American meats, if cold storage shipping can be guaranteed; also wheat, flour and other food products. Cable promptly, stating quantities and price each commodity, cost, insurance, freight at French ports, preferably La Rochelle."

The demand for sugar from Europe continues, and it is estimated that the sales for export amount to from 100,000 to 150,000 barrels per week at an equivalent of 7.18 cents a pound. The prices for raw and refined sugar remain unchanged.

A plan is now advocated to establish a feed bureau to be known as the Department of Commerce which is expected to encourage the bringing of supplies into the city, and give dealer, producer and consumer a square deal. A further proposition has been adopted which aims toward educating school children in what foods to buy and how to buy them. Forty per cent of the city's retail buying is done by children and adults of foreign birth can be most readily reached with educative propaganda through their children. The plan will embrace instruction in selecting cheap, nutritious substitutes for expensive foods and later may include demonstrations in preparation of foodstuffs. The free services of ten retired butchers and ten retired grocers have been secured to aid the teachers in showing the children how to buy.

The troubles of importers of canned goods, which have been many since the start of the European war, took a new turn recently when several of the big firms in this city received cable advices that consignments of French, Belgian and English goods had been confiscated by the military authorities for the immediate needs of the armies. One house here representing the only factory in Belgium packing sardines received word that the entire production of the concern has been requisitioned by the Belgian government, while a consignment of Portuguese sardines transshipped by way of England has been taken over by the government there. German firms supplying local importers with food products have notified their connections here that they will be unable during the continuance of the war to fill orders they have on hand or contract for future deliveries.

The Board of Health published in the City Record a chapter on the high cost of flour and the way to avoid paying so much. It suggests that Americans use rye bread, as rye flour costs \$1.75 a barrel less than white flour and is just as

nutritious. Oat-meal is mentioned as a stable and economical article of diet, and if combined with white flour, makes a bread of wonderful color and flavor, superior to white bread in nutrition and keeping power. It will last a week without growing stale.

A review of the export of foodstuffs from the port of New York from September 1 to 20, inclusive, shows that during that period 24,794,556 pounds of raw cane sugar were trans-shipped from Cuba for England, besides 25,293 bags of refined sugar and 5,500 bags of corn sugar. The shipments of flour amounted to 48,713 bags and 5,001 bags. Exports of wheat to England aggregated 324,825 bushels. France purchased no sugar but took 57,961 bags of flour and 550,851 bushels of oats.

Statistics compiled at the recent expiration of Nathan Straus's twenty-third year of supplying pasteurized milk for New York City babies at slight cost, show the Nathan Straus laboratories have distributed 37,000,000 bottles of pasteurized milk at the Manhattan milk stations and have served 20,000,000 glasses in the parks and recreation piers.

There is evidence in downtown freight offices of the trunk railroads that special efforts are being made to bring grain by the train load to this city for shipment abroad. Freight managers telephone their headquarters in Chicago and other centers to hurry consignments through to the seaboard. In most instances the orders carry the information that haste was needed because of the impatience of exporters to get their cargoes on the high seas.

While the packers are talking of the law of supply and demand as regulating meat prices, the amount of meats in cold storage here continues to grow in volume. According to testimony brought out at the inquiry into food prices in Brooklyn there is at the present time practically three times the quantity awaiting a market in this city and vicinity that there was last year. It was reported that the food inquiry conducted by United States District Attorney Youngs in Brooklyn had reached the stage where he is prepared to go before the federal grand jury and ask for indictments. Statistics from the New York custom house show that from July 1 to September 5 the receipts of fresh meat imported here were: fresh beef in quarters, 34,352,012 pounds; lambs and mutton 2,214,220 pounds; veal 392,054 pounds, and sundry meats 3,788,887.

Considerable garden trucking is now being done in Manhattan north of 181st street as far as Kingsbridge. Vacant patches of land on the side streets adjoining Broadway are favorite places for the "farms" which range from half a city lot to several.

New regulations have been proposed by the sanitary superintendent of the Department of Health which will prohibit persons from raising chickens in their back yards where there is another residence or public institution within 75 feet of the poultry enclosure, and no roosters will be permitted. During the last year 8,600 permits were issued to raise chickens and the number of chickens represented by these approximates 200,000.

Collector of the Port Malone has been informed that there is no need for the publication of lists of the brands of British Spirits showing their classification respectively as "plain British" or "compounded" spirits, inasmuch as the British commissioner of customs and excise has stated that but one article, namely, whiskey (Scotch, Irish and all other brands) received upon exportation from Great Britain the lower allowance 3d per gallon, all other spirits not methylated spirits coming under the head of "compounded" and receiving the higher allowance of 5d upon exportation from the United Kingdom. Local importers have expressed entire satisfaction with the decision.

The supply of fresh eggs is becoming smaller each week and considerable storage eggs are being sold. Best western eggs are wholesaling at 30 to 32 cents. The sharp advance in the market on native cheese has reduced the consumptive demand and with dealers unable to force their customers to pay the higher prices, the wholesale market developed so much weakness that values receded materially. Finest cream cheese is held at 15½ to 16 cents while the ordinary kinds are not exceeding 14½ to 15 cents. The receipts of fresh creamery butter show a slight falling off, the finest grades wholesaling at 32 to 32½ cents. The advance in the wholesale market has caused many of the consumers to use oleomargarine and other cheap substitutes and prices of the latter have advanced materially. The wholesale market on fricassee fowls has advanced one cent per pound. This is due to the temporary shortage of stock caused by the heavy demand for live fowls here for the Hebrew holidays. The receipts of native beef have been moderate, but we have at least 2,000,000 pounds in the warehouses most of which is Argentine but comparatively

little native beef is held. The Montevideo steamer Vestrin unloaded a cargo of 13,584 quarters of beef, 117 hogs and 1,060 cases of canned beef. It is reported that most of the Argentine beef has been purchased by England and will be held in storage at this end and taken across as needed. This has greatly curtailed our available supply which is responsible for the continued high prices. Native beef is selling at 15½ to 16 cents. Pork and pork products are still scarce and high.

Heavy buying of the various antiseptics, pepsins, quinine and other drugs generally consumed in large quantities on the battlefield is being done here for European account. The domestic preparations of this kind are said to be sold up eight or ten weeks ahead, and prices on them are advancing steadily.

The New York Globe has opened thirty-seven stations throughout the city where various kinds of fish are sold at 5 cents per pound.

CLEAN MILK ECONOMICAL.

There has been in the past much difference on the part of consumers with respect to the cleanliness of milk; too many of them desire to buy milk at a low price and do not give any consideration to quality. Dirty milk may prove expensive as a gift, while clean milk may be economical even at a high price; the cheapest article is often the most expensive. A higher price for clean milk may be cheap insurance against some form of sickness.

In a recent Farmers' Bulletin (No. 602) the United States Department of Agriculture has outlined the main factors that should go to favor the production of clean, safe milk. These include clean, healthy cows kept in light, well-ventilated stables that may be easily cleaned; a well-drained barnyard; thoroughly sterilized utensils, and healthy milkers that milk with dry hands; a small-top milking pail; a separate house for handling the milk; an abundant supply of pure water. The temperature at which the milk is kept is also an important feature, as bacteria multiply very rapidly when the temperature is above 50 degrees F. The milk should be cooled immediately after milking to 50 degrees F., or lower, and stored, until delivered, at a low temperature.

An increasing demand for good, clean milk among consumers is a gratifying indication that there is a more general realization of the importance of this item. This demand has resulted in more stringent regulations concerning the sanitary conditions associated with the milk supply. Compliance with these sanitary rules requires additional care, attention, and extra expense on the part of the producer of the milk, and while this expense may not be large, it is only fair that the consumer should pay his share of the cost of improving the quality of the milk. The consumer cannot expect to purchase a clean, safe milk at the same price as a dirty milk which endangers the health of his family.

A more serious consideration is the marked increase in the cost of production which has resulted in recent years from feed and labor problems. This increase is in keeping with the increase in the cost of almost every commodity, and the consumer must expect to pay his portion of any legitimate increase in the cost of production occasioned by these conditions.

On the other hand there is need of more attention to better management on the average farm devoted to the production of milk. The amount of milk produced per cow is frequently so low as to reflect seriously upon the business ability of the owner. A producer who makes no systematic effort to lower the cost of production by increasing the average production of milk per cow is entitled to little sympathy if he finds the business unprofitable. The profits yielded by a good cow often go to offset losses caused by poor cows in the same stable. The keeping of records of production of each individual in the herd, the elimination of unprofitable cows, the improvement of the herd through selection of the best producers and breeding them to a bull of dairy merit, and the selection of the best heifers from such breeding are necessary to put milk production on a sound basis. Unless the producer does these things he disregards the fundamental principles of business economy, and it is unreasonable for such a man to expect the consumer to pay him a profit on business practices which represent such economic waste. There is no good excuse for slack business methods on the dairy farm. Directions for keeping records of milk yields and cost of production are furnished by every state agricultural college and by the United States Department of Agriculture.

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BUY PURE COMPRESSED YEAST

The discussion about using starch in Compressed Yeast has reached the point in the United States of a decision forcing those who used it to declare the fact on the wrapper or label.

That is how we administer the Food Laws in this country.

In Austria where they do things more thoroughly, the chemists of the Royal Experiment Station of Vienna investigated the question for some years and finally reported against the use of Starch in Compressed Yeast for the reason that when mixed with Yeast "STARCH IS LIABLE DURING A CERTAIN STAGE OF THE DETERIORATION TO HIDE PUTREFACTION OF THE YEAST AND THEREBY FAVORS THE MARKETING OF PRODUCTS UNWHOLESOME AND DANGEROUS TO THE PUBLIC HEALTH."

Thereupon the Austrian Government promptly passed a law prohibiting altogether the use of starch in Yeast.

We Do Not Use Starch in Yeast

A. P. CALLAHAN & COMPANY

2407 La Salle Street

Telephone Calumet 410

CHICAGO, ILLINOIS

Ohio Correspondence

(From Our Staff Correspondent)

COLUMBUS, O., September 30.—A long step is expected to be made in the efficiency of food inspection by the opening up of government headquarters in Cincinnati during October. Dr. J. S. Abbott, of the Bureau, Department of Agriculture, Washington, D. C., was in Columbus on the 19th inst., in conference with Commissioner Strode. This visit had to do not only with the foregoing move, but also with other matters along the line of co-operation between government and state authorities. Dr. Abbott, as chairman of the committee created at the late Portland convention, is now going over the field personally and getting the work started.

The Cincinnati office will have as its territory the states of Ohio, Kentucky and Indiana. Two government inspectors from Chicago are already on the ground, and a third inspector will be selected through state authority. Cincinnati is an ideal location, being at a point where two of the states touch each other and within a few miles of the boundary line of Indiana. Regulation will be made uniform throughout the territory, so that the good work of one state cannot be nullified by the "bootlegging" of condemned products from another state. Provision for this reform was made by the government a year or more ago. The delay in putting it into effect has been on the part of the states which have not the facilities, financial and otherwise, that are possessed by the national authorities in readily taking hold of new work.

In the general matter of co-operation, its need on the part of all advance movements within the same state, is every day apparent, even though no direct relation exists. Here is an illustration: Recently Chief Canning Inspector Robertson chanced to overhear a teacher in a public school in one of the large cities of Ohio advise her pupils not to eat canned goods, for the reason, as she stated, that they contained salicylic acid. As a matter of fact, the canning industry of this state, as in most others, is under rigid inspection, and products are free from preservative other than the wholesome substances of sugar and salt. The statement made by the teacher was one of ignorance and calculated to work injury not only to manufacturers, but to the consuming public to whom canned goods are an economical factor in the problem of feeding. Before making an assertion that would be carried into perhaps half a hundred homes, she should have taken pains to inform herself. The facts were easily available. The dairy and food department, being as quick to protect an industry against injustice as to prosecute offenses, reported the incident to the State School Commissioner. It is hoped that this will have the good effect of bringing public educators into better appreciation of the department as a source of information that can be constantly utilized to good advantage in creating an interest in pure food among the rising generation. Evidences that educators are waking up to this matter is shown in increasing requests to have representatives of the department address bodies of students, particularly those taking a domestic science course.

Chief of Dairy and Food Division B. S. Bartlow will have favorable opportunity to do some educational work in connection with the Ohio Agricultural Institute, which is to be in session at Ohio State University, Columbus, October 22-24. He will deliver an address on "Frauds in Marketing." This body is made up of those who will address groups of farmers and small-town people during the winter throughout the state in the interest of better farming methods and rural life reforms.

With another session of the legislature not far in the future, the department is naturally thinking about the attention it hopes to receive from the lawmakers. One bill which will be presented provides for the compulsory candling of eggs, and if passed, will remedy the weak spot in the state's otherwise excellent egg inspection service. A need that is greatly felt is a registration law requiring manufacturers of food products to file with the department certain facts with regard to themselves. Thus it would be known at all times just what new concerns were coming into the field and the scope of their operations. As the matter now stands, inspectors often do not know of the existence of small enterprises until they stumble against them. The better class of manufacturers are favorable to such a law. A very small registration fee would cover the extra office expense imposed upon the department and the data thus secured would relieve inspectors of time and energy outlay that could be better expended in other matters. Probably a request will be made

upon the legislature for an additional number of inspectors. The drug department especially, on which much tedious detective work devolves, is handicapped by having too few assistants.

Commissioner Strode has reason to be a convert to the theory that it pays to advertise. On the other hand, he is finding some inconvenience in having his methods produce bumper results. The plan of reaching the people through the agricultural fairs, with booths of object lessons which show up all kinds of frauds, has worked out far beyond expectation this fall. The exhibits have proved so interesting that the public wants them kept up all the year around. The fair season closes within a week or two, but requests keep coming into the department to put the display on at home-coming and carnival events. Those who have not seen the exhibit, have heard of it, and it has taken rank as a standard star attraction. Such interest is very gratifying, but unfortunately the staging of the show with its necessary attendants is a heavy draft on the resources of the department with respect to help. The enterprise has been at the expense somewhat of other work of the department, and it is probable that many localities desiring the exhibit will have to be disappointed for the time being at least.

An early decision is being expected by the weights and measures branch of the service on the legality of the law requiring apples, potatoes and certain other bulky food products to be sold by weight instead of measure. When the law went into effect some months ago, it was attacked by the commission merchants in the county courts here and declared defective. It is confidently believed that the Supreme Court, to which body the question was carried, will sustain the department.

During the past two months the drug division has been very busy. It is interesting to know that within a year's time 155 cases have been filed, 111 of which were narcotic. These have resulted in the inflicting of fines upon offenders to the total amount of \$7,025 and jail sentences aggregating 159 months. Chief Drug Inspector W. R. Hower and Narcotic Inspector A. C. Johnston are now in the midst of a very vigorous warfare. In the recent Cincinnati campaign against "dope" selling, all but three of the 24 persons against whom affidavits were filed pleaded guilty. Some technicalities developed in the case of the others, one which jointly involves a physician and a druggist, to be decided by the higher courts.

Since this sharp, decisive fight two notable cases have developed. One was that in which the superintendent of a children's home at Greenville, O., took three children away from their drug-using mother. It was found that her offspring had also become addicted, and the youngest, a baby only a few months old, died from morphine impoverishment at the public home. The drug had been given them by a physician, who was himself a victim. In another instance a trafficker at Dayton, through a local druggist and a wholesale drug concern at Cincinnati, had been securing large quantities of narcotics which he was selling to inmates of the National Soldiers' Home at Dayton. The culprit when arrested made a full confession.

The drug division is about to issue a very unique document, involving a subject on which there is practically no literature. It will show in detail results of exhaustive analysis of cigarettes. The author is Azor Thurston, chemist of the department, and a man of national reputation in his line. As a result of his own careful experiments, he replies to the popular belief that opium or other narcotic forms an ingredient of the cigarette. He announces the following:

1. No added medicinal substances of a narcotic nature were found in the tobacco of any of the cigarettes analysed.
2. The tobacco was found to be slightly lower in nicotine than the average smoking tobacco.
3. The paper was found to be coated with the carbonates and oxides of calcium, aluminum and magnesium, added probably to regulate the burning qualities or to prevent a too rapid combustion.
4. The well-known evil effects of habitual cigarette smoking must be attributed to the inhalation of the smoke or the products of combustion, rather than to any added narcotic in either the tobacco or the papers.

The investigation of Chemist Thurston was suggested by the fact that quantities of the cheaper brands of cigarettes were almost invariably found with opium outfits, and that narcotic victims are in a great majority of cases addicted to the cigarette habit.

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You get this when you ask for Quaker Oats, and you pay no extra price. Don't you consider that worth while?

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*10c and 25c per Package
 Except in Far West and South*

Pennsylvania Correspondence

(From our Staff Correspondent.)

HARRISBURG, PA., Sept. 30.—Investigation of the cold storage conditions in Pennsylvania with a view to ascertaining the sentiment in regard to changes in the cold storage regulation act of 1913, its effect upon the trade and the necessity of amendment, was begun a few days ago, but further sessions are unlikely until after the November election. Only one hearing has been held and it was in Pittsburgh where a number of cold storage men were heard and two lines of suggestions made, both of which are pretty certain to be opposed.

Pittsburgh cold storage men claim that the period in which eggs could be stored should be extended to one year. It is now eight months, which it was asserted is too short and facts from the experience of men who stored were presented. Another contention was that it was unfair to label articles cold storage unless in reality they could be called such, the point being emphasized that there are many things put into storage which do not remain half the period permitted, and yet when they are put on sale they must be labeled cold storage food. Some products, it was said, might be stored less than seventy-two hours and yet have to be labeled the same as an article that was in storage half a year.

It is significant that the platforms of none of the political parties in the present campaign, which is one of the most bitterly contested in years, contain any reference to cold storage regulation. It is generally regarded as accomplished and while it is recognized that there must be some changes made to the law to couple up on points the abolition of the regulation is regarded as impossible, unless the courts knock out the law. It is said that the State Grange will make some suggestions on the law and will combat any changes in the periods for storage. The Philadelphia and Erie fish trade and the Philadelphia provision trade will present suggestions in the late fall or early winter. The big fight will be on changes in storage periods.

Pronounced sentiment in favor of selling all commodities by weight and the adoption of a uniform system of marks was manifested at the third annual conference of the sealers of weights and measures of the state which was held here a few days ago. About seventy sealers, city and county officials, attended and there was not much difference on any lines of policy. The schedule of tolerances adopted recently was generally commended and the sentiment for sales by weight was general. Much of the time was devoted to relation of experiences and it was generally agreed that the manufacturers of scales, weights and measures were assisting in driving out the crooks. The plan for uniform marks would do away with much re-inspection and will probably be worked out on a basis of the inspections of one man being accepted in another city or county.

The State Zoologist's bureau, which has compiled a list of all of the orchards of the state, the varieties of trees and the production, has just completed for the benefit of canneries and shippers as well as commission men a so-called "white list." This list will give facts about orchards whose owners have adopted scientific methods for the suppression of pests and the improvement of quality of fruits. It also gives much information about the extensive commercial orchards lately planted in the state. This list and the list of canneries and creameries recently issued as state publications have been much in demand.

Dairy and Food Commissioner James Foust has been pushing the crusade against the sale of "soft" drinks that are adulterated or made of spurious materials and the record for the summer will show a large percentage of convictions. The use of saccharin has been found to have decreased.

Another line which has claimed much attention during the year has been ice cream in which many investigations have been made and through co-operation of ice cream manufacturers some unsanitary places have been closed up. The state has a law for standards of fats and there has been a pretty vigorous enforcement. Itinerant venders have been regulated in a number of cities through co-operation of local health officers.

The peach crop in the southern Pennsylvania counties this year was so immense that in many instances growers could hardly afford to pick and pack. Local sales were made at prices which were lower than known for a decade and the

commission men had offers which they could not accept because of the crowded markets. Big apple crops are in prospect in the same region.

Considerable storing of wheat is reported at the state offices. The crop this year ran very high, being a million bushels greater than last year according to estimates made at the Department of Agriculture and a greater acreage than known before is being put into wheat this fall, pasture land being ploughed up for wheat. Definite steps are being taken by the bureau of statistics of the Department of Agriculture to find out the acreage sown in wheat and the extent of the corn yield. A system of crop reports has been inaugurated, 1,500 reporters being selected throughout the state.

BORAX AS A FLY PREVENTIVE.

The little, pesky, dangerous, disease-carrying fly has been with us for ages, carrying disease germs on its feet and hairy legs. It is a noted typhoid germ carrier, a filthy insect which contaminates our food, a pest to man and other animals and a real menace to health. It certainly will be a blessing to mankind when this dangerous, disease-carrying, obnoxious, pestiferous insect is no more.

The U. S. Department of Agriculture conducted a series of scientific investigations with some two score or more chemicals for the purpose of preventing the propagation of the fly, and reached the conclusion that common, everyday borax is one of the best, cheapest and most easily obtained chemicals to prevent the propagation of the fly. The Department of Agriculture, in its Bulletin No. 118, contains very interesting matter on this subject, and says:

"The most favorable results were obtained by the use of borax, which possesses a marked larvicidal action and appears to exert no permanent injury on the bacteria."

The directions for treating manure with borax to kill fly eggs and maggots are as follows:

"Apply 10 ounces of borax to every 10 cubic feet (8 bushels) of manure immediately on its removal from the barn. Apply the borax particularly around the outer edges of the pile with a flour sifter or any fine sieve, and sprinkle 2 or 3 gallons of water over the borax-treated manure.

"The reason for applying the borax to the fresh manure immediately after its removal from the stable is that the flies lay their eggs on the fresh manure, and borax, when it comes in contact with the eggs, prevents their hatching. As the maggots congregate at the outer edges of the pile, most of the borax should be applied there. The treatment should be repeated with each addition of fresh manure, but when the manure is kept in closed boxes less frequent applications will be sufficient. In addition to the application of borax to horse manure to kill fly larvæ, it may be applied in the same proportion to other manures, as well as to refuse and garbage. Borax may also be applied to floors and crevices in barns, stables, markets, etc., as well as to street sweepings, and water should be added, as in the treatment of horse manure. After estimating the amount of material to be treated and weighing the necessary amount of borax a measure may be used which will hold the proper amount, thus avoiding subsequent weighings."

In reference to garbage, the instructions are to sprinkle 2 ounces of borax in the garbage can daily.

The above instructions should be followed explicitly if beneficial results are to be obtained.

When the general public realizes the value of hygienic precautions, and substances are used to prevent the propagation of flies, mosquitoes, roaches and other vermin, a great pest to mankind will be eliminated.

AMERICAN HEALTH ASSOCIATION.

The forty-second annual meeting of the American Public Health Association will be held at Jacksonville, Fla., November 30 to December 5. In connection with the meeting there will be held the Southern Health Exhibition which will embrace sanitation, preventive medicine, hygiene, anti-narcotic work, food and drug inspection, fly eradication and other pertinent phases of health work.



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TO THE JOBBER AND RETAILER



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We cannot make Waw Waw Sauce itself any better but we can and will make Waw Waw Sauce a better seller.

An extensive advertising campaign in the leading Journals is now in course of preparation. No pains, expense or effort will be spared to make Waw Waw a leader in easy, steady selling, just as it is now a leader in quality.

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SPECIAL—If you are not fully acquainted with the unusual merit of Waw Waw Sauce, write at once and a full size sample bottle will be sent for trial on your own table.

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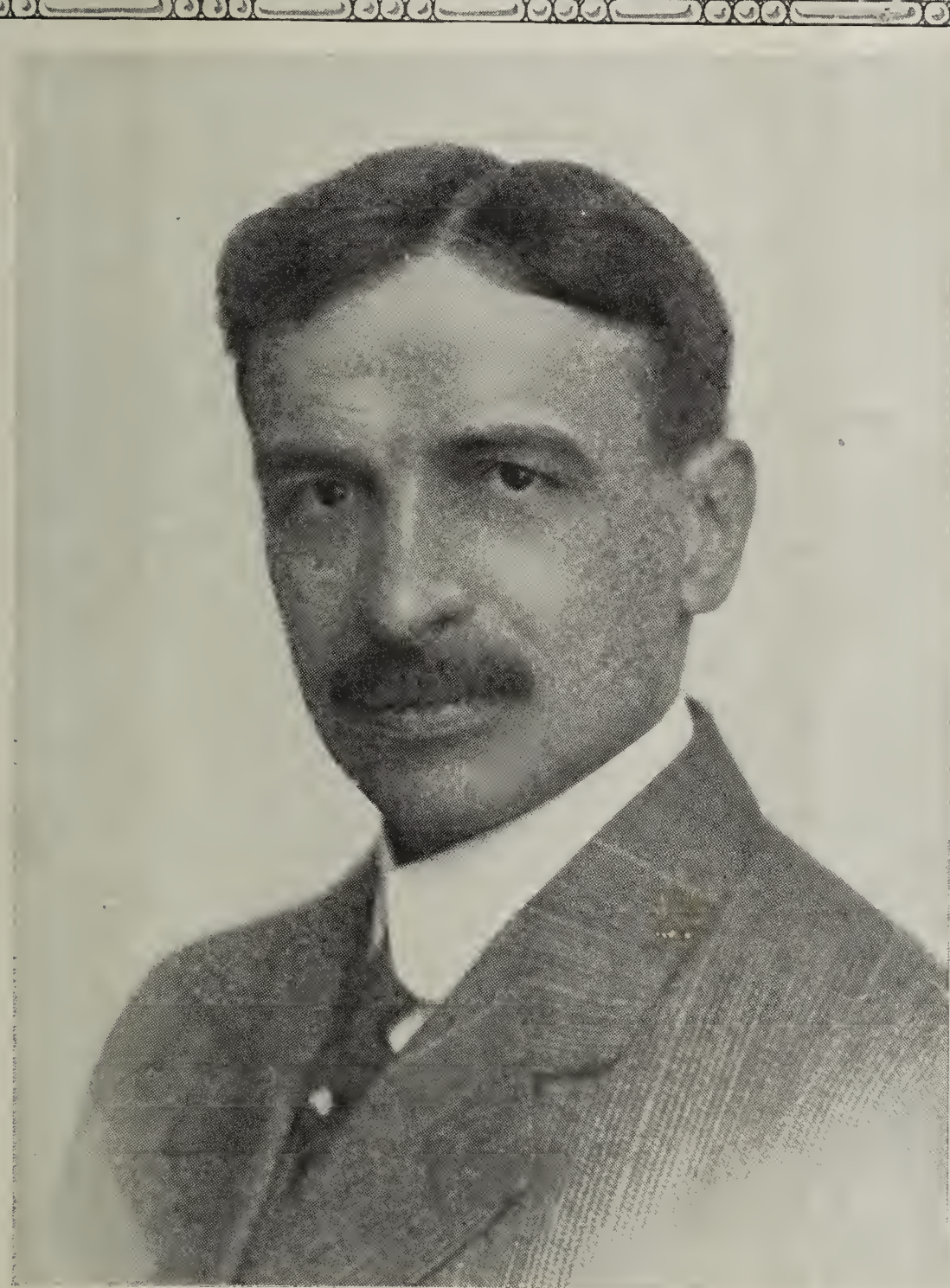
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Vol. IX.

NOVEMBER, 1914.

Number 11.

Food Handlers Should Be Healthy

THE subject of food sanitation is receiving a larger amount of attention at the present time, perhaps, than any other single phase of pure food work.

Sanitary campaigns are being held in every part of the country and inspection of stores and factories, both by officials and by organizations in co-operation with private individuals, is carried on to a very large extent. Every bit of this work when kept within reasonable bounds is commendable and should be still further extended until it includes every establishment where food for human consumption is handled or stored.

It is very important, however, that in the zeal for cleaning up premises, seeing that stores are supplied with sanitary equipment, and doing away with all kinds of dust and germ catchers and spreaders, we should not lose sight of a very important point, and that is to insist that the individuals who are engaged in handling or dispensing food products should be personally clean and healthy.

It has been conclusively demonstrated that disease may be spread through contamination from food that has been handled by one who may be unfit physically, and this particular phase of sanitary effort has not received the attention it deserves. We do not wish to be understood to say that this matter of personal sanitation has been entirely overlooked, but we do wish to say that the matter can be given generally a great deal more attention than has yet been the case, to the advantage of the public.

We must not only inspect the foods and the places where they are stored, but we must also inspect every person who touches them in the process of manufacture and distribution.

A great many factories have so perfected their manufacturing process that they have become entirely mechanical and "The elimination of the human hand" has become a popular advertising phrase with owners of many of these perfectly equipped factories. When foods are manufactured and put in packages entirely

by machinery, the risk in connection with personal handling is, of course, largely eliminated.

While the number of package foods has increased enormously during the past years, the fact remains that there are immense quantities of food products which in their nature can never be handled without human hands.

In connection with this subject of personal sanitation it is interesting to note the following statement concerning the regulations for keeping the people of Panama healthy and protecting them against carelessness:

"The Canal Government has set an example to hotel keepers generally to protect the health of the patrons of the government hotels on the Isthmus by requiring all employees handling food to submit to medical examination. A recent examination disclosed the presence of one typhoid carrier in a 'silver mess,' who was promptly deported. The sanitary condition of the personnel was found to be highly satisfactory. Periodical examinations will be made to determine the presence of tuberculosis and other diseases."

The one thing which did more than anything else to make possible the construction of the Panama Canal was the thorough sanitation of the Isthmus. This is freely acknowledged by all who had anything to do with the construction of that gigantic undertaking. It furnishes a splendid illustration of what can be done in the way of maintaining health and eliminating unsanitary conditions, the force of which should not be lost.

What has been done in Panama can be done in any part of the United States, and the matter of keeping people healthy and capable of the maximum amount of exertion is the most important problem of the race.

When we have arrived at the point where we have pure wholesome foods, perfect mechanical sanitary conditions, and only permit absolutely healthy people to handle that which we eat, then the danger of disease will be reduced to a minimum.

PATERNALISM IN FOOD MANUFACTURE.

WE HEAR a great deal of complaint from many sources in regard to increasing tendencies in this country to paternalism of our government in reference to commercial and industrial work. In this respect we certainly have less to complain of than possibly any other country.

It is noticeable in particular foreign governments seem more willing to stand sponsor for the purity and wholesomeness of foods than it is probable the United States government will ever be.

In this connection it is interesting to read the statement from the Consul General of the Netherlands at the port of New York, who says that since the opening of the year his government has taken steps to control the manufacture and standardization of whole milk cheese, with a view to compelling purity and true standards of quality.

In accordance with this aim two cheese control stations have been established under government supervision at Prinsegracht in The Hague and at Vredenburg in Utrecht. These two stations have received the right from the government to give the official marks to the members to use on their cheese. These stations have only full cream cheese under control.

The object of the stations is the control for whole milk cheese guarantees: First, that the cheese, bearing the government mark for whole milk cheese, is made from whole cow's milk without any addition of foreign fats, and second, that the cheese contains at least 45 per cent of fat in the dry matter, and third, that the amount of water remains within normal limits.

The Consul states:

The control stations for whole milk cheese are established by associations of interested persons; only such persons can be admitted to these control stations who are of good repute and who are not connected with the manufacturing of or the trade in margarine or other fats or oils which either in the pure state or mixed with other substances are edible or can be used for the adulteration of cheese.

The control for whole milk cheese is a control of the manufacturing. It is based upon the examination; a, of the quantity and the composition of the milk used; b, of the composition and the quantity of the cheese and the whey butter obtained therefrom; c, of the quantity of fat left in the whey.

The Dutch-controlled full cream cheese bears the government mark for whole milk cheese.

The Netherlands government has fixed rules to which the control stations for whole milk cheese and their members must submit before they are allowed to use the government mark, and the government supervises to see that these rules are strictly followed up. The supervision includes the inspection of the manufacturing places of the members and their books, the sampling and the examination of the raw materials used, of the products obtained and of the accessories. By the chemical examination it is shown that the controlled cheese actually contains at least 45 per cent of fat in the dry matter.

The minimum guarantee of 45 per cent fat in the dry matter of the cheese includes a guarantee that the cheese is made from unskimmed milk. The minimum amount of 45 per cent is based upon the examination, during some years, of whole milk cheese, from which it appeared that whole milk cheese, when properly made, always can contain at least 45 per cent of fat in the dry matter.

The average amount of fat in the dry matter of properly made whole milk Dutch cheese is between 49 and 50 per cent, a percentage below 46 being the exception.

Milk poor in fat and milk rich in fat, when unskimmed, can produce cheese of about the same richness in fat; for instance, it was found that cheese made from whole milk with respectively 2.51 per cent and 4.18 per cent of fat contained respectively 49.6 and 49.1 per cent of fat, whereas the amount of fat left in the whey was respectively 0.27 and 0.35 per cent.

SAYS EAT MORE POTATOES.

IT IS NATURAL that each section of the United States should endeavor to increase the consumption of its particular product. Whether or not the people can be induced to eat more potatoes than they now do is a question, but at any rate, the Michigan Dairy and Food Department has issued a special Bulletin No. 44 entitled "Eat More Potatoes," hoping in this way to help the Michigan producers dispose of their crop.

Commissioner Helme takes occasion in this bulletin to call attention to the easy digestibility of potatoes and the useful salts they contain and their very high nutritive value. The bulletin reads:

"According to the Federal census, the state of Michigan last year produced more potatoes than any other state in the Union, and the three states of Michigan, New York and Wisconsin produced over 60 per cent of all the potatoes used in the United States. The potato crop of Michigan is this year exceptionally good and it is the one foodstuff now in common use which is now selling at a very low price. Potatoes in the potato districts of Michigan are at present wholesaling from 35 to 40 cents a bushel and they are by far the cheapest form of starchy foods, which starchy foods are necessary in the human system to produce heat and energy." The following statements relative to the food and medicinal value of the potato are taken from an article by Dr. J. H. Kellogg, of the famous Battle Creek Sanitarium.

"He says that the potato is more easily digested and appropriated by the body than the starches of wheat, corn and other cereals. In laboratory tests it was found that potato starch digested in less than one-sixth of the time of cereal starch. One-fourth of the weight of the potato is food substance, nine-elevenths of which consist of starch. Of the remainder, three-fifths is protein and two-fifths alkaline salts in combination with citric and malic acids, the acids of the lemon and the apple. The potato is deficient in protein and fats, which can be easily supplied by other foods.

"Nearly 5 per cent of the dry substance of the potato consists of salts, chiefly potash. These salts tend to purify the blood from the acids caused by the use of meats, which are the chief causes of hardening of the arteries, gout, rheumatism, Bright's disease and apoplexy. These salts of the potato are located just under the skin and for that reason potatoes should not be pared before being cooked.

"The potato has a high nutritive value. One pound of baked potato has the same food value as 5 $\frac{7}{8}$ ounces of beef, one pound of chicken, 10 pints of beef tea or 7 ounces of bread. The potato is not rich in protein and this should be supplied to the ration by the addition of milk or eggs. Half a pint of rich milk will thus balance a pound of baked potato. The potato is the most valuable of all known foods in furnishing alkaline salts to purify the blood, and the free use of the potato combats rheumatism and gout, which are the results of chronic intestinal poisoning.

NEW MICHIGAN FOOD INSPECTORS.

COMMISSIONER JAMES W. HELME of Michigan has appointed two new Food Inspectors to fill vacancies caused by the discharge of inspectors who were arrested recently on charges of bribery. The new inspectors are George H. Lennon and Frank N. Dillon.

NO OPIUM IN CIGARETTES

Deputy Minister's Office, Ottawa, Oct. 16, 1914.
 Editor The American Food Journal,
 15-21 S. Market St., Chicago, Ill., U. S. A.

Dear Sir: Your Ohio correspondent, in the October issue, mentions the fact that Dr. Thurston has completed a study of cigarettes, with a view to ascertaining the character of these articles. He finds that, contrary to the suspicions of many, the tobacco, as well as the wrappers, is free from opium or other narcotic alkaloids.

It may interest your readers to know that the chief analyst of this department made a report upon 40 brands of cigarettes, domestic and foreign, in November, 1908, which report was not published at the time, being of a confidential nature to some extent; but the salient features of it were given in evidence before a special committee of Parliament in April of this year, and Dr. McGill's evidence appears in the proceedings of the committee referred to.

The report contains the following:

"I beg to report that in the cases of the following named brands of cigarettes (40 brands) very careful examination has been made for alkaloids foreign to tobacco and especially for the alkaloids of opium. In no case has any reaction been obtained which could justify a conclusion other than the tobacco contained in these cigarettes is free from foreign alkaloids, within the limits of sensitiveness of the tests applied."

The remainder of the report is chiefly technical and need not be quoted here. The work was done at the request of well-meaning persons who were impressed by statements published by the Boston Anti-Cigarette League, to the effect that opium had been detected in cigarettes. Upon direct correspondence with the analyst who was said to have detected opium, Dr. McGill obtained from him an acknowledgment of error.

It was later learned that in November, 1906, Professor A. G. Woodman of the Massachusetts Institute of Technology had examined four brands of cigarettes for the league above named, and reported negative results as regards opium.

The consensus of opinions based upon all the work above referred to would appear to justify the conclusion that the ill effects of cigarette smoking must be attributed to something else than the presence of opium.

Yours truly,

J. N. Vunn,
 Deputy Minister.

JAMES H. WALLIS RESIGNS.

IT WAS with considerable regret throughout the country that the announcement of the resignation of Mr. James H. Wallis, Dairy and Food Commissioner of Idaho, was received, early in October.

Mr. Wallis was one of the best known pure food officials of the United States and he has filled the office of food commissioner of Idaho since the establishment of that department in the State.

Mr. Wallis was also very active in the Association of Dairy, Food and Drug Officials, of which organization he was president last year, and presided at the convention held in Portland, Me., the past summer.

He has an international reputation and a record for effective work in the pure food line that makes his resignation a distinct loss to Idaho and the United States. His efficiency is unquestioned and Mr. Wallis is the type of man whose services the food interests and the people of this country can ill afford to lose.

TENTH YEAR ANNIVERSARY EDITION.

THE publishers of THE AMERICAN FOOD JOURNAL will issue a special edition of the magazine, commemorating the tenth anniversary of its establishment.

This anniversary edition will be the January, 1915, number. It will give a complete review of work done in securing pure food for the people of the United States during the past ten years.

While pioneer work in reference to securing pure food legislation has been done for many years in this country, the active results and major part of accomplishment is easily covered in the ten-year period between 1905 and 1915.

The National Pure Food Law was passed in 1906 and previous to this time pure food legislation among the states was not general; also food control officials since have had their powers greatly increased, and almost every state now has an active pure food department.

We shall give in our tenth year anniversary edition a complete review of the work that has been accomplished through state and national activity and also an outline of work as yet to be done, or in process of accomplishment.

This is designed to be the principal feature of the edition, although there will be many especially prepared supplementary articles about food production and distribution.

FEED CONTROL OFFICIALS TO MEET.

THE sixth annual convention of the Association of Feed Control Officials of the United States will be held at the Raleigh Hotel, Washington, D. C., November 13 and 14, 1914. The address of welcome will be given by Hon. Carl Vrooman, newly appointed Assistant Secretary of Agriculture.

Among the other interesting speakers on the program are Dr. H. J. Waters, President Kansas State Agricultural College who will give an address on the subject, "What is the matter with corn as a feed?" R. W. Chapin, of Hammond, Ind., who represents the American Feed Manufacturers' Association, will address the convention on "Feed Manufacturers' Problem." Dr. J. W. T. Duvel, Crop Technologist in Charge of Grain Standardization, United States Department of Agriculture, will talk on the subject of "Deterioration of Grains in Storage and Transit." Dr. J. S. Buckley, of the Pathological Division, Bureau of Animal Industry, U. S. Department of Agriculture, has for the subject of his address, "The Possibilities of Damaged Feeds Producing Disease in Animals."

AMERICAN SOCIETY OF MILLING AND BAKING TECHNOLOGY TO MEET.

J. A. LECLERC, secretary of the American Society of Milling and Baking Technology, announces that the annual meeting of that organization will be held at the Raleigh Hotel, Washington, D. C., on Wednesday, November 18, 1914.

Mr. LeClerc requests that all collaborators who have not yet sent in their reports on milling, baking, the use of baking powder or chemical analysis, should do so as soon as possible.

All communications should be addressed to Sec. J. A. LeClerc, Bureau of Chemistry, U. S. Department of Agriculture.

A New Kind of Health Educational Exhibit

A HEALTH exhibit which can secure front page newspaper space and double column headlines in these days of big events must indeed be a big event in itself. Such was the case, however, with the health exhibit of the Illinois State Board of Health on its recent first showing at the Illinois State Fair at Springfield.

It was the forcefulness, originality and general attractiveness of this display of health facts which caused it to be a matter for such wide newspaper notice, a subject of comment from the pulpit and a topic of general discussion among the many thousands of visitors at the fair. Whole schools in and around the capitol city were dismissed for the purpose of affording the pupils an opportunity to study the exhibit preliminary to writing theses thereon. The wide and intelligent interest it attracted not only must be a source of satisfaction to our new State Board of Health but more important than all else is promising

ely pieces of a design calculated to excite the curiosity of the passer by.

On account of so large a number of the visitors being from the rural districts, perhaps the most observed and impressive exhibit piece was the mechanical model showing how shallow dug wells commonly are polluted.

THE WELL POLLUTION MODEL.

Centered in an attractive rural setting were two figures at the farm pump, one of them was working the pump for dear life, the other flushing his boot under the flowing water, the flushings trickling back into the well through its defective top covering. From nearby sources of pollution, the barn on one side, an outhouse on the other, seepage to the well through the earth strata was shown in such an effective manner as to leave a lasting impression in the mind of the observer. Here and there were telling legends such as "Perhaps that fine mineral flavor you notice in the



MECHANICAL MODEL SHOWING POLLUTION OF DUG WELL.

See path from barnyard and outhouse clearly shown by water passing through earth strata from sources of contamination to well. Figures working at pump.

of marked public benefit, such as must naturally follow a wider knowledge of vital health facts.

That the exhibit is new and original in design we have only to mention the fact that in its entirety it is the product of the ingenuity of the present secretary of the Illinois State Board of Health. To Dr. C. St. Clair Drake belongs the credit.

The strong point of this exhibit was its ability to attract attention and to vividly impress its lessons at a glance. Instead of the old stereotyped style of health display consisting chiefly of statistical statements, diagrams, photographs, samples of office forms and publications, which few people take the trouble to visit and fewer the time to study, it was made up largely of attractive working models, popular demonstrations, catchy cartoons well executed in bright colors, and a large number of what may be called nov-

water comes from the barnyard," and "shallow dug wells dig many deep graves," etc.

In this booth also were found sanitary types of outhouses for rural communities, plans and specifications for which were furnished free on request, a model of a sewerage filtration plant for a small community; a map of Illinois on which the sanitary quality of the water supply of practically every city in the state was indicated by means of different colored flags; a demonstration of the relative amount of soap required when using hard or soft water, with instructions how to soften the water; a model of an efficient water filtration plant for a small town and numerous other practical demonstrations relative to water supplies and sewerage treatment. In this booth the State Water Survey exhibited in co-operation with the State Board of Health.

THE DIRTY FLY IN ACTION.

The dangers of the common house fly were vividly portrayed in another working model. From an illy kept barn, the garbage can, an outhouse and other sources of contamination, a steady procession of flies was seen passing through the air to the kitchen and

tention and this thought leads to the suggestion that a device of this kind could be displayed with advantage in any community.

Backing up this particular exhibit were many striking cartoons with forceful legends, microscopic showings of the anatomy of the fly also models of efficient



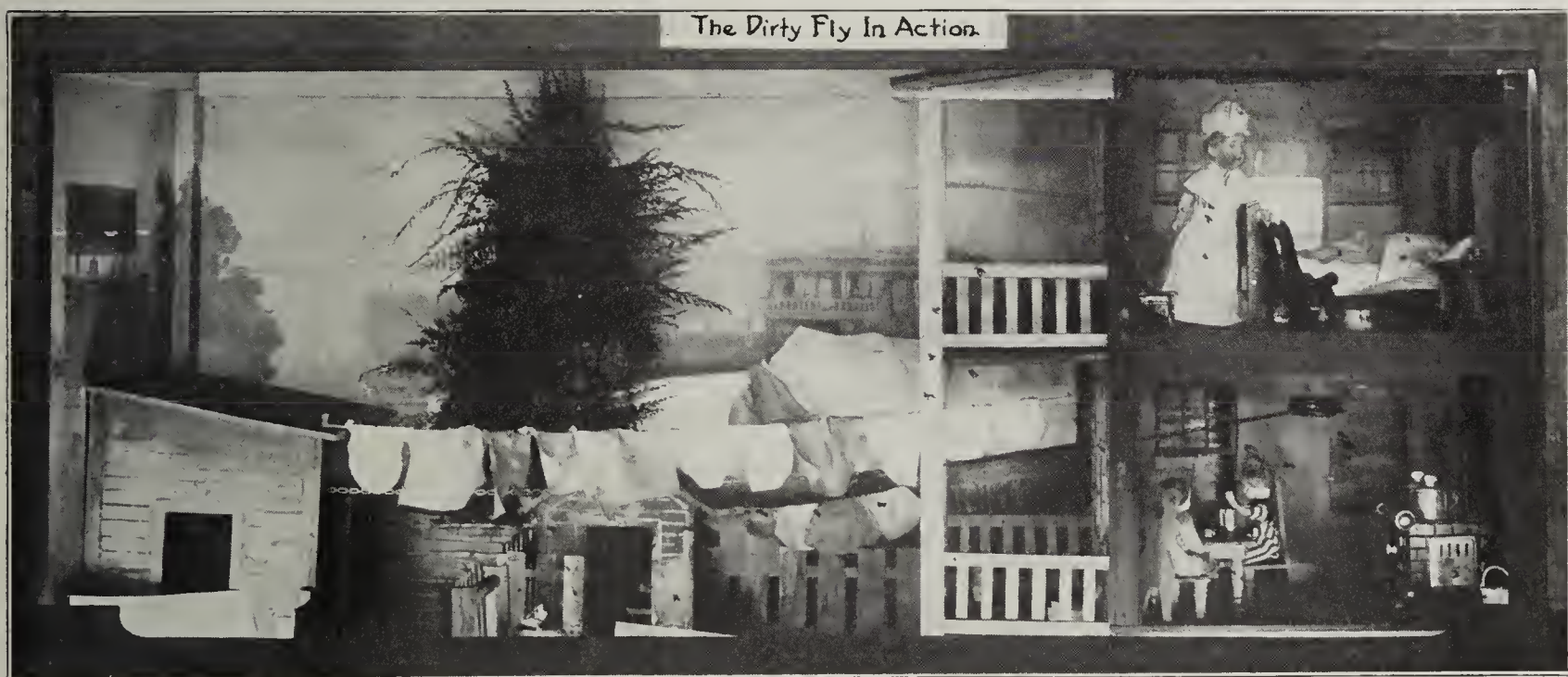
WATER SUPPLIES AND RURAL SANITATION BOOTH.
The State Board of Health Co-operating with State Water Survey.

dining room of the house. Flies were swarming in the kitchen and dining room and in the sick room above. They were alternately in the sick room picking up infection, then in the dining room wiping their feet on the food; in the outhouse gathering filth on their feet, and then in the milk on the kitchen table. The filthy habits of the fly were never more strikingly shown than

fly traps such as any one might make at home. Demonstrators gave brief punchy talks and distributed pamphlets setting forth the life habits of the fly and the latest approved information in methods of extermination.

IMPURE AIR DANGERS SHOWN.

Two booths were devoted to the subject of impure



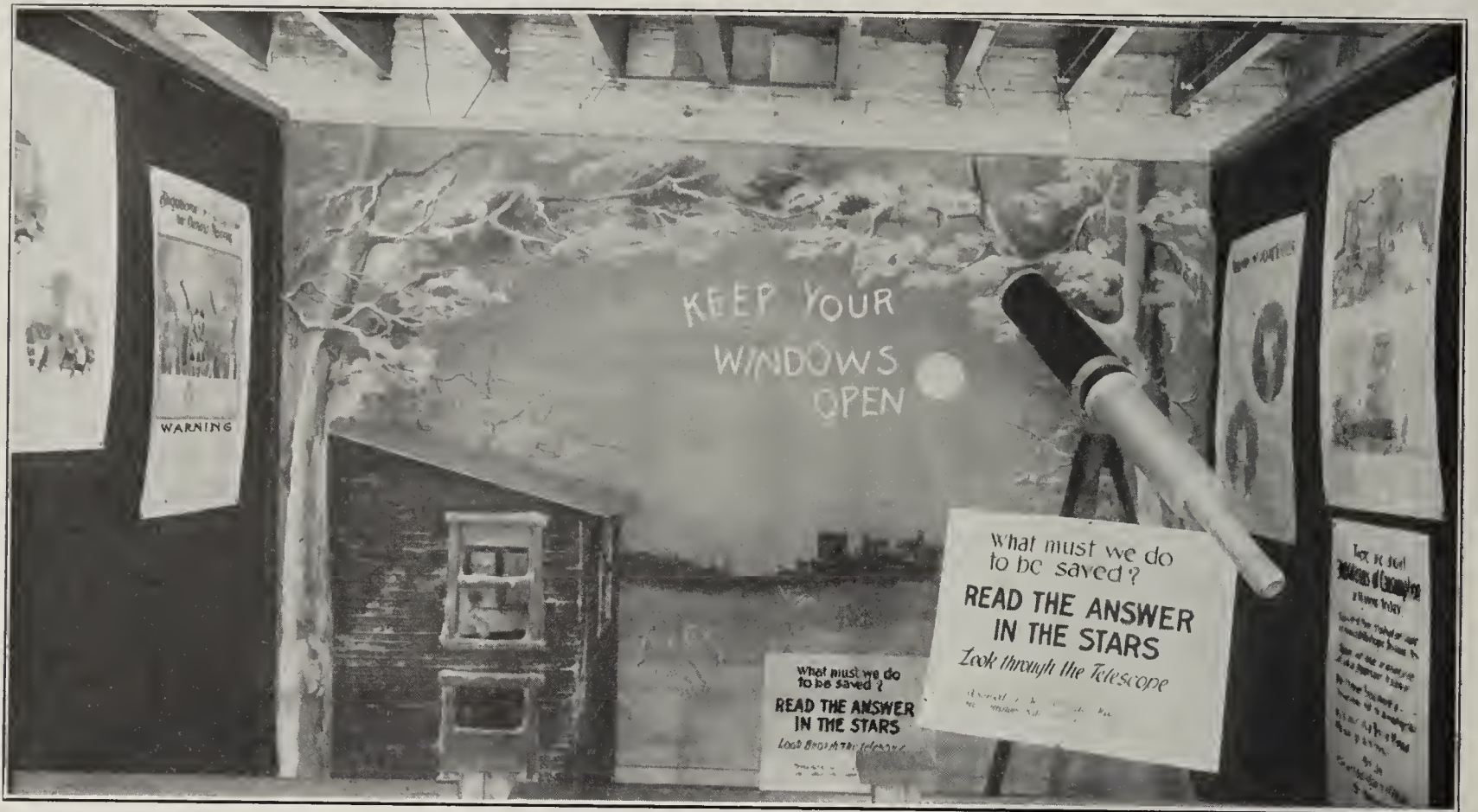
MECHANICAL MODEL SHOWING THE DEADLY HOUSE FLY IN ACTION.

in this ingenious mechanical device. How any one could see it without developing a wholesome fear of the fly is beyond comprehension. This model we venture the prediction is likely to do more to encourage fly extermination—which of course means clean-up work—than anything which has yet come to our at-

air diseases; in one the "Breathing Dolls," a mechanical model developed by Dr. Drake about two years ago, was shown in a greatly improved form. It was a tremendously forceful demonstration of the difference in air conditions in an open-window and a closed-window room.

Here we beheld in an attractive scenic setting a nicely proportioned two-room model, two bed rooms in which sleeping, breathing dolls could be seen through the glass front of the house. One bed room had open windows and transoms, the other had all win-

frosty morning. In the closed window room the air was thick and foul in appearance, whereas in the open window room the smoke rapidly passed away, without the aid of forced ventilation, leaving the air of this room fresh and pure.



IMPURE AIR DISEASES DEMONSTRATION BOOTH.

Talks to public upon advantages and need of fresh air, good ventilation. Consultation with reference to care and treatment of tuberculosis and pneumonia. Outdoor sleeping apparatus shown and demonstrated.

dows and transoms closed. By means of an electrically operated device smoke was forced through the dolls' nostrils at normal exhalation intervals, these visible exhalations appearing much like we see them on a

This might be called a double-barreled demonstration for it contrasted conditions and pointed out the remedy, a remedy available to all—the open window.

In the other fresh air booth, the first thing to catch



THE BREATHING DOLLS.

A graphic demonstration of the need of open windows in ordinary sleeping quarters. Two bedrooms, one with open windows, the other with windows closed.

By means of mechanical device operated by electric motor smoke is forced from dolls' nostrils at normal breathing exhalation rate. Air of open-window room keeps clear, while the air of closed room becomes thick and foul appearing.

the eye and excite curiosity was a large telescope over which this legend appeared: "What must we do to be saved?" "Read the answer in the stars." Looking through the telescope towards the starry heavens in the background the stars were seen to spell out: "Keep your windows open."

Having secured the attention of the passer-by the attendants then proceeded to talk briefly on the prevention and cure of tuberculosis and the avoidance of pneumonia. Outdoor sleeping garments and other similar equipment were shown and a model of Dr. George T. Palmer's adaptation of old box cars to the construction of an inexpensive shack for outdoor care of tuberculosis patients was to be seen. Much interest was evidenced in this part of the exhibit and a large quantity of literature was distributed.

CHILD WELFARE.

A considerable portion of the exhibit was devoted to the important subject of child hygiene, continuous demonstrations of baby care, feeding, dressing and

Reaper," this death rate dawned upon us as something awful, in every sense of this much misused word.

One baby in every five dropping into the grave before reaching its second birthday! Think of it!

Surrounding this model was an inclined screen with "myriads" of small holes in it, bright lights being placed behind the screen to emphasize the number of holes. A legend informed us that each one of the 14,500 holes represented a death of a baby in Illinois within the last twelve months. This made an impression which no plain statement of figures possibly could do. And then when told that at least 60 per cent of these deaths could be avoided it begins to dawn on one the baby welfare work is very much worth while, or a very pressing need in every community.

If Dr. Drake's baby death rate model, which he first designed for the Chicago Infant Welfare Exhibition in 1912, impresses others, as it did the writer, it is bound to develop a new public consciousness of a sadly neglected responsibility to our baby citizens.



BABY DEATH RATE DEMONSTRATOR.

Mechanical model striking down every fifth baby as they pass around below the "grim reaper." 14,000 perforations in metal screen indicating number of baby deaths in Illinois each year.

bathing, being given to mothers, a very large number of whom came especially to this section of the exhibit, all apparently eager for advice. Home pasteurization of milk and a simple milk filtration test also were demonstrated.

Perhaps no other piece in this rather wonderful exhibit made a deeper impression on the public mind than did the mechanical model bearing the legend "The Slaughter of the Innocents." Here we had the high death rate which prevails among babies brought home to us in the most vivid manner possible. Never before did we realize what a death rate of 200 per 1,000 of population really meant. But when we saw an endless procession of babies, represented by dolls, passing before us and every fifth one struck down by the "Grim

There are a few other novel devices that the secretary of the State Board of Health developed for this exhibit which drew marked attention. They were simple but attractive, and being attractive they held attention long enough to drive home some health truth.

There was one piece known as the "Mechanical Interpreter" which by the simple pressing of a lever converted what looked to us like a Chinese laundry bill into perfectly good English. In its converted form it told us to "Swat the Flies and Save the Babies."

"The Labyrinth of Life" was another device about which one noticed large numbers of persons all intent upon its solution. Young and old tried to see if they could pass from "infancy, at the portals, to good old age," the central objective point, through a bewildering

ing maze of passageways and avoid the obstacles, the obstacles being the preventable diseases. From this one learned what the common preventable diseases are and, under the present mode of living, about what ones chances are of avoiding them.

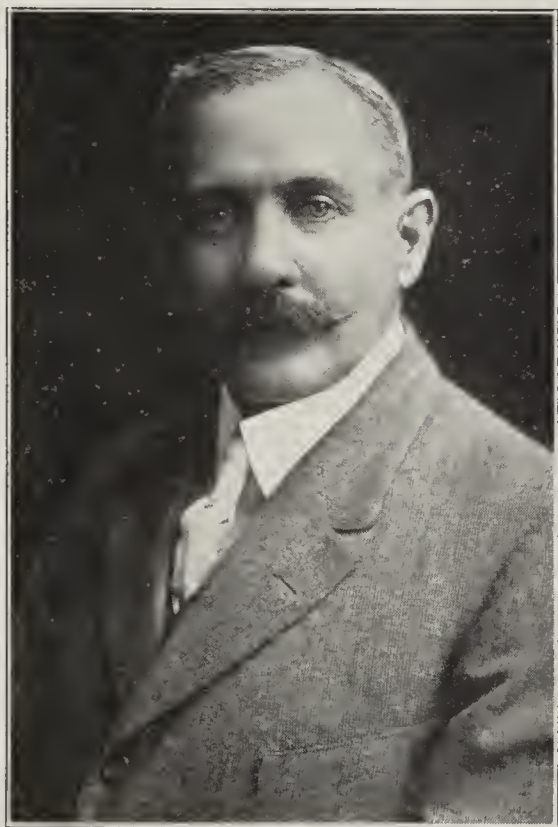
A little further on was seen another puzzling device labeled "The Pure Milk Problem," "Its Solution Is Possible," or "Try It." This was an adaptation of the old time sixteen puzzle and it was so designed as to cleverly serve the purpose of emphasizing the essentials in the production of a sanitary milk. Each segment of the puzzle represented some factor in the pure milk problem and by properly arranging these segments in order of the sequence of factors one finally got a bottle of "Pure Milk."

These are a few of the things in which the fifty thousand visitors to the exhibit took great interest. They are the things which made the health exhibit the distinctive feature of the Illinois State Fair of 1914.

It is the intention of the State Board of Health to send this exhibit throughout the state. At present it is engaged for showing at the state conference of Charities and Corrections at La Salle, the meeting of the Southern Illinois Medical Society at Mt. Vernon, the Illinois Federation of Women's Clubs at Springfield, and at the exhibition to be held in connection with the Springfield Survey. It should be productive of a great good wherever shown.

WILL STUDY FOOD LEGISLATION.

THE Chamber of Commerce of the United States, which is a body composed of representatives from several hundred local boards of trade, chambers of commerce and trade associations, distributed throughout the United States, appointed a special committee last July to take up the study of uniform food and drug regulation.



MR. W. M. McCORMICK.

This committee is composed of: Willoughby M. McCormick, of Baltimore; A. J. Porter, of Niagara Falls; John A. Green, of Cleveland; B. L. Murray, of New York, and Theo. F. Whitmarsh, of New York.

The first meeting of this committee was held in Washington, D. C., on October 8th and was devoted

to the organization and preparation of a program for future work.

The following resolution, commending the efforts of the Department of Agriculture tending toward co-operation and uniformity, was also adopted:

"Resolved, That this committee hereby earnestly and heartily endorses the establishment of the bureau in the United States Department of Agriculture, particularly concerned with Federal and State co-operation in the enforcement of the food and drug control laws, thereby promoting an equal and uniform enforcement of such laws, believing that this work is distinctly in the public interest."

The position taken by the committee on the meaning of uniformity is interesting and will repay close examination. Its views are not confined to a limited horizon, but are intended to grasp the broader and wider fields. Its efforts will be confined to no organization or class of people. It hopes to cover in its endeavors the position of the wholesaler, the retailer, the consumer, the manufacturer, the official, and all others concerned in the production, handling and consumption of food and drugs. But only the broad, general questions of national character will be considered. After a lengthy discussion the committee at its meeting, by a unanimous vote of all present, adopted the following regarding uniformity:

"Uniformity as the committee would define it involves the highest degree of efficiency in food and drug control which it is possible to have prevail universally and equally in every part of the nation. The Federal, State and municipal laws and their regulations would, if perfect uniformity were attainable, reach the level of full and complete efficiency—and thereby afford equal protection and uniform standard of living for all the people. Uniformity accomplished places merit and the general public interest over local political or geographical divisions. This committee will, therefore, direct its efforts and consideration toward the accomplishment of uniformity. The committee cannot but feel impressed with the magnitude, the importance, and the seriousness of its work. It cannot but feel the need for the closest study of the subject. And again the committee cannot but feel the necessity for the fullest and most cordial co-operation between itself and the officials and all others concerned. The committee will, of necessity, act deliberately and slowly, making certain of each step, considering only the important problems of national character."

IOWA COMMISSIONER WANTS MORE INSPECTORS.

W. B. BARNEY, state food and dairy commissioner of Iowa, is preparing to ask the legislature of that state when it convenes the coming winter, for six additional inspectors to aid him in enforcing the pure food laws.

Commissioner Barney asserts that he will not urge the passage of any additional laws governing food and dairy interests, but he will request a few changes in the present statutes to strengthen them and give the inspectors more authority.

In commenting on the subject of legislation Mr. Barney is reported to have said: "We have about all the laws we will need for the next two years. If we can get more men to help enforce the measures we now have, we will feel that we are fairly well taken care of. I will be satisfied with six additional inspectors. Some of the men now doing a combination of food and dairy work will be transferred to dairy work entirely. With the men we hope to get we will have three men for food law enforcement and three men to detail to looking after the weight and measure law."

The Iowa Food and Dairy Department is now on a self-supporting basis, according to Mr. Barney, who asserts also that much of the opposition to food laws is disappearing and that as a rule the grocers and dealers in food supplies in cities and towns of the state are assisting the state commission in cleaning up and throwing adulterated foods off the market, there being evident a general spirit of co-operation.

Enormous Destruction Caused by Rats

BY S. J. CRUMBINE, M. D., SECRETARY KANSAS STATE BOARD OF HEALTH.

RATS, like people, must eat to live. Hence the millions of rats living in America today represent just that much of an economic waste to the people of this country because of the cost of their living. If there was no food available for rats, their existence would be impossible, which at once suggests the most important method for a successful "Bat the Rat" campaign, such as was recently so successfully inaugurated by the Louisiana State Board of Health.

By preference rats live upon grain of various kinds, and household or table wastes, but when hungry will attack living animals, such as small chicks, ducks or turkeys, and in extreme cases have even been known to attack babies.

Rats are dangerous. They have no legitimate business, nor can they serve any good purpose in any community. Sanitarians are all agreed that rats are a serious menace to life. They are so filthy in their habits, as tenants of sewers and as feeders on everything

offers. Another method may be through the pollution of foodstuffs by infected rats, through their secretions or excretions. That practically all rats are flea-ridden has been proven by a large number of observers. Recently the health department of the city of Providence, R. I., examined 341 rats for the number of fleas upon them. Of this number a majority of the rats were flea-infested, the average number of fleas per rat being 11, and the largest number of fleas on any single rat being 300. Four different kinds of fleas were found, those very largely in the majority being human biting fleas. In the California investigation, the average number of fleas found on infected rats were $3\frac{1}{2}$.

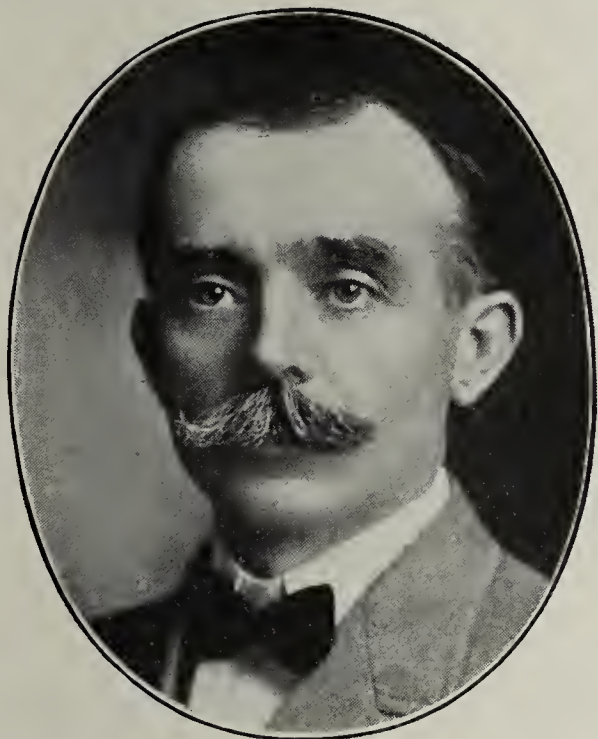
McCoy has found from his work in California that a considerable number of rats are afflicted with the so-called "Cat Tapeworm." One noticeable, and possibly significant fact is that from two meat markets from which were obtained 15 and 22 rats respectively, these parasites were present in the liver in 25 per cent of each lot. A bladder worm was present in all the six cases which were examined.

The question as to whether there is a relation between the filthiness of the home of the rat and the number of fleas is of interest. The hairy rats of the stables and docks might be expected to bear more fleas than the rats of cleaner localities, such as homes, barns, etc. It is found in these investigations, however, that the average number of fleas per rat from the stables and docks was especially low. On the other hand, the average number of fleas on rats from the cleaner places was generally high. The average number on 40 rats which were taken from a restaurant was 36 fleas; that from a creamery 22; from a dwelling house 10; from another house 8; from a dry goods store 10. The reason for this is doubtless that the fleas breed in the nests of the rats, and are only on the bodies of the rats to feed, so a damp, cold location of the nest would seem to strongly inhibit the breeding of the fleas.

That rats are afflicted with many diseases besides bubonic plague is affirmed by Dr. Rupert Blue, Surgeon-General of the United States Public Health Service. Speaking on this point, he says: "Other infections of the rat are trematodes, or flukes, cestodes or tapeworms, nematodes or roundworms, protozoa, insects, and vegetable microbes. Of the rats examined in San Francisco, 34 per cent were infested with tapeworms."

Reasonable estimates can be made as to the economic cost of rats. This calculation embraces two factors, namely, a rodent census and the average amount of damage done by one rat. Both of these factors have had considerable expert investigation at various times and places, so that a reasonably safe estimate may be made which may apply to any community as a whole.

By means of trapping, percentages covering a period of one year, it is found that the rodent population of San Francisco was slightly in excess of the human population. Extensive work of a similar character recently carried on in Porto Rico (the same method of computation being employed) gave the proportion of



MR. S. J. CRUMBINE.

dirty and diseased, that it is no wonder they are carriers of disease, parasites and plague infection.

It has been confirmed beyond the shadow of a doubt that rats are a factor, if not the chief factor, in the spread of bubonic plague. Rats dead from this disease have been found, time after time, in houses where outbreaks of plague have occurred. An effective campaign against rats in such communities has effectually stopped further spread of the plague. Moreover, experimental work has shown that rodent plague and that affecting human beings are identical.

It is not at all likely that plague will ever visit the interior states, but those states will be wise if they recognize the possibility of such a visitation. In the Public Health Reports of October 16, 1914, the statement is made that up to the time of going to press, there had been reported 29 cases of plague in man and 177 cases in rodents.

The chief method of the transmission of plague through rodents is by fleas which live upon the infected rats which, in turn, bite the human when opportunity

rats to human inhabitants in the cities of that island as being about equal to the human population.

However, when we come to the rural districts, we find upon farms and plantations an average of many times the human population, there being upon farms in the north from three to four times the human population, while in the great grain and cane producing areas, the proportion is many times that of the human population. On one cane plantation in Porto Rico where there were less than 500 people, within six months there were killed 25,000 rats.

It seems, therefore, that a reasonable estimate of the rodent population of the United States is equal to the human census, which number is certainly well within the actual facts. We have, therefore, in the United States at the present time approximately 100,000,000 rats. Similar estimates have been made in Great Britain and Ireland by the Incorporated Society for the Destruction of Vermin and authoritative figures are, also, available from Denmark, France and Germany. All of these figures accord in that the rat population is equal to, or slightly in excess, of the human population. These same authorities conclude the annual upkeep per single rat in Great Britain to be \$1.80, in France \$1.00, and in Denmark \$1.20. Judging from the complaints coming from American farmers, the damage and economic cost of rats in this country will greatly exceed these estimates. It is thought that one-half cent per day would be a very conservative estimate, and it is believed the same figure can be safely placed on the damage and cost of the city rat, as well as the country rat. Using this figure, then, as a basis for an estimation of the economic loss in the United States, we have the large amount of \$182,500,000, which is worse than wasted.

The following is a list of articles usually damaged by rats: all kinds of grains, before and after harvest, eggs and poultry, especially small chicks, wild birds, their eggs and young, fruits and vegetables, both while growing and in storage, flowers, bulbs and shrubs; all kinds of foods in bags or boxes, and all food products in pantries, grocery stores, meat markets, stables and general markets.

Lantz cites the following specific cases of rat depredation: "An Iowa farmer writing to an agricultural journal related that rats had destroyed in one winter about 500 bushels of corn of a total of 2,000 bushels stored in cribs. Another farmer reported that rats had robbed him of an entire summer's hatching of 300 or 400 chicks. Still another one attributed his loss in grain and poultry for one season due to rats as sufficient to pay his taxes for three years."

Lantz further quotes a Washington merchant to the effect that rats gnawed a hole in a tub containing 100 dozen eggs and within a period of two weeks carried away 71 dozen of the eggs without leaving either shell or stain.

Because the rat is an animal of nocturnal habits, its depredations are often passed unnoticed or are ascribed to other sources. As we have already seen, the cost of rats in the United States reaches the sum total of \$182,500,000, constituting one of the greatest economic losses which this country has to support.

It is believed that a nation-wide "Bat the Rat Campaign" will go a long way towards preventing much of this unnecessary loss, and in safeguarding the public health. However, the extermination of rats is not as easily accomplished as fly destruction. An adult rat will produce on an average six litters of young an-

nually, each litter containing from six to twelve young. There have been known cases where a full-grown female littered twelve times in one year. This remarkable fecundity, together with the secretive and nocturnal habits of the rat, readily accounts for the large rate of population in any locality, and emphasizes the difficulties in the way of rat destruction.

The usual methods of destroying rats are by trapping and poisoning, and by the use of certain breeds of cats and dogs, although the latter method is of doubtful utility. To assure success in any trapping or poisoning measures, it will be necessary to cut off the rat's food supply by the proper disposal of garbage and table waste, and by preventing rats from gaining access to such food supplies as are contained in pantries, grocery stores, markets, stables, granaries, etc. This can best be done, and perhaps most successfully, by the rat-proofing of buildings.

There are some important points about placing traps. They should be placed wherever rats have been accustomed to coming for food supplies. They should be more or less concealed by scattering dust, flour or corn meal on or about them, concealing the cage-traps by pieces of sacking, straw or rubbish, leaving only the opening free. But above all, successful trapping can only be expected where all other food supplies are absolutely cut off other than the bait of the trap. To the rat the question of food supply is a matter of availability, not of preference.

Creel relates an instance where a bakery was overrun with rats. The most experienced trapper set traps in and around the place for two or three weeks without catching a single rodent, notwithstanding the rotation of bait of various kinds. Finally, the bakery was moved, and the building closed temporarily for rat-proofing. Three or four days after the removal of the stock, when all loose flour and food had been consumed by the rats, the trapper caught over 30 rats in one morning, and in four days the place yielded a total bag of 80 rats. Therefore, traps or poisons of any kind or character placed in the neighborhood of a garbage pail or in pantries or stores where other foods are available, will only result in wasted effort.

In view of the enormous economic waste of daily feeding millions of rats in this country, and in view of the possibility of their disseminating disease and parasites, it is suggested that every commissioner set aside a week in the near future as a "Bat the Rat" week, everybody taking part in the campaign by employing one or more of the above suggested methods.

One important rule to remember in an effort to rid a place of rats is that a rodent will not be tempted by bait, or be lured into traps when other food is more accessible. If there is a juicy bit of bacon in a single trap and a crib full of corn in easy reach, the rat will go to the corn and not to the trap.

It is self-evident, therefore, that any effort to "Bat the Rat" that gives hope of success must take into account the fact that if food supplies are accessible, the method will fail, whereas if all food supplies, waste, garbage and other material utilized by rats for food are cut off, they are comparatively easily trapped and will readily take poisoned food.

The Farmers' Bulletin, No. 369, of the Department of Agriculture, gives a number of ways of getting rid of these pests, some of which are as follows:

"(a) When a house is infested with rats which refuse to be caught by cheese and other baits, a few drops

of highly scented oil of rhodium poured on the bottom of the trap will be an attraction they can't refuse.

"(b) Place on the floor near where their holes are supposed to be a thin layer of moist caustic potash. When the rats travel on this it will cause their feet to become sore, which they will lick, and their tongues become likewise sore. The consequence is that they shun this locality, and seem to inform all the neighboring rats about it, and the result is that they soon abandon a house that contains such a preventive.

"(c) They may also be killed by fumigation. Chlorine, carbon monoxide, sulphur dioxide and hydrocyanic acid are in common use."

The use of hydrocyanic acid is not to be recommended, however, because of its highly poisonous character.

One of the best methods is the trap—either the wire cage or the guillotine snap trap; both are good but must be strong. The wire cage has the advantage of size, and will often catch half a dozen rats where the snap trap only catches one. One of the most clever inventions on the market is a trap made in Holton, Kansas, and it is said that 16 rats have been caught in this trap in a single night.

Of the poisons barium bicarbonate is perhaps the best; it is tasteless and odorless, and if scattered around in small doses is not fatal to dogs, but should not be used where chickens run freely. It is most effective where one part is mixed with four parts of dough or meal. A number of poisons are on the market that contain arsenic or strychnine which answer the purpose very well. The chief disadvantage of using poisons on the farm is that they may be eaten by fowl.

A solitary farmer or merchant fighting rats in his barn or place of business may temporarily relieve the situation and save the farmers' crops or chickens, thereby, on the one hand, or the merchant's merchandise, on the other, from destruction, but he has not aided materially in the solution of the vexatious problem, or given himself a lasting protection. His neighbors' rats will come to his barn or store, and in a short time conditions will be as bad as ever. The only effective campaign, therefore, is a general campaign in which all the people in a community or state join together at the same time to "Bat the Rat."

PROHIBITION KANSAS.

THE people of Kansas have lived under prohibition so long that, we have heard it said, the only beverage other than plain water which a loyal Kansan will recommend to visitors is milk—and sweet milk at that. It is therefore in line with the true Kansas spirit that a decision was rendered recently by the Kansas Supreme Court, holding tincture of ginger to be an intoxicant, and that any druggist who sells it might be prosecuted for violation of the prohibitory law.

It was also the opinion of the court that spirits of lemon, tincture of vanilla, spirits of camphor, colognes and similar extracts and essences, if they actually would make a man drunk, are to be classed as intoxicating liquors.

There must still be a few unregenerate in Kansas, for how else could we account for the suspicion that anyone might become sufficiently desperate as to partake of any of the above articles as a beverage!

DRUG RETAILERS WANT UNIFORM LAWS.

THE National Association of Retail Druggists met at Philadelphia recently in its sixteenth annual convention. Druggists from all over the United States were in attendance. Uniformity of pure food and drug laws was advocated by James F. Finneran of Boston, president of the association, who said that it was evident to all who have made a study of the subject that the time is now at hand when the pure food and drug laws of the United States, as well as the various states should be made as near uniform as possible. He declared that the lack of uniformity in state laws particularly causes manufacturers and retailers a great deal of trouble and the condition should be remedied.

In the course of his address President Finneran said also that in his opinion the enforcement of the drug laws in the various states should be under the supervision of the boards of registration in pharmacy. "Furthermore," he continued, "we believe that every person selling, dispensing or giving away anything in the line of drugs should come within the provisions of the law. It is a well known fact that the pure drug laws in many states cover only such drugs, and do not apply to the same drugs when sold or given away by others."

AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE.

IN commemoration of the completion of the Panama Canal, the American Association for the Advancement of Science is planning to hold an extensive series of scientific meetings in San Francisco and vicinity during the first week of August, 1915. General addresses by eminent American and European authorities are being prepared upon such topics of peculiar Pacific Coast interest as the oceanography of the Pacific Ocean; the geology of Western North America; the palaeontology of North and South America; and the ethnology of the peoples of the Pacific area.

Other sessions are being prepared for the comprehensive discussion of problems of wide interest in the various fields of science. The meetings concerned with agricultural science will deal in general with questions of food supply and of agricultural conservation, and of these sessions at least one will be devoted to subjects of nutrition, and one to more general questions of agricultural chemistry. It is expected that a number of national chemical and agricultural societies will convene in conjunction with the meetings of the American Association.

LIVE STOCK EXPOSITION.

THE International Live Stock Exposition will be held at the Union Stock Yards, Chicago, from November 28th to December 5th, 1914.

This is an important annual event. The exposition is held for the purpose of creating interest in an increased production of better live stock, and is worthy the interest of the entire public.

The Western Cannery Association will meet at the Hotel Sherman in Chicago on November 20, 1914.

Interesting Information About Ripe Olives

BY WILLIAM W. KENNEDY.

THE ripe olive, as we know it, sold in tins and in glass, is peculiarly an American institution. It is generally called the California ripe olive to distinguish it from the Greek black olive used so much among the Jews, Russians, and other peoples of Southern Europe.

The Greek olive, while generally sold to the ultimate consumer in brine or in a sauce of some kind, is nevertheless imported into this country by the large wholesalers or importers in a nearly dry form, simply salted down, the salt serving to draw the moisture out of the fruit and preserving it.

While the Greek black olive is known to a comparatively few people out of a thousand, the California ripe olive is forging its way into favor day by day.

The olive, on ripening, if exposed to the sun's rays takes on a bluish-purple color, which on processing becomes a deep chocolate brown to a black color. If you bite into a ripe olive, as it comes from the tree, it will make your tongue feel as if it were pierced with needles and your mouth will be puckered up so the old-fashioned persimmon would seem a delicacy beside it. In order to make the ripe olive edible it was necessary to find some way of removing or neutralizing the tannic acid present which caused this awful astringent effect. Just how to do this was a problem for the original packer of ripe olives, and is a problem the successful solution of which is still bothering some packers. The tannic acid is removed by repeated treatment with solutions of alkali which neutralize the tannic acid and render it soluble in water so it can be washed out. This must be done in a careful manner and with definite technique, for otherwise the oil vesicles or cells are disrupted and the oil liberated. This, according to the extent of it, tends to vitiate the flavor and quality of the final product because, as any one with an elementary knowledge of chemistry knows, the oil, being a fatty substance, will be saponified by the alkali and a soap formed. This not only robs the olive of its oil which contributes largely to its flavor, but there is liable to be a soapy taste left in. After the alkali has been washed out and the process completed, the olives are put into brine of a light density. They are then put into cans of various sizes and into handsome glass packages, sterilized and packed ready for the consumer.

The curing of the ripe olive is done somewhat differently by different packers, each having his own particular secret method. The olives are usually a few weeks going through the process.

In California there are a number of different kinds of olives grown, just as there are in Europe, but the olives used most generally for canning are the Mission and Manzanilla types, the former being the most popular in favor.

The Mission olive is longer in shape than the Manzanilla and more pointed. Neither grow to a very large size, but they are very rich in oil and are used also as a source of olive oil production.

The olive, in common with most fruits, grows larger in years when the crop is short, for then the vitality of the tree is not drained by so big a burden. The Ascolano type of olive is generally used by those pack-

ers who pride themselves in putting out a jumbo size of ripe olive, for this type grows to large sizes. These, however, do not contain near as large a percentage of oil as the Mission olive, and are not even so much to be desired as the smaller one when flavor is the criterion of quality.

A packer of ripe olives is particularly fortunate if his plant is right in the heart of the olive growing district, so that he can allow the olives to thoroughly ripen and bring them into his plant at the height of their maturity, when nature has developed the rich oil to its full extent. The olives, under these conditions, can be brought into the factory by motor trucks and not be crushed or bruised, and be put into the sorting machine but a short interval after being picked from the trees. If the olives have to be shipped in cars some distance they cannot stand the shipping if they are not quite firm, and the tendency on the part of some packers is to abuse this privilege and pick them quite immature so they will ship well and not tend to ferment before going into the process. These olives, of course, have not had their full quota of oil developed. When processed they are still quite firm and the pits will not slip from the fruit easily on eating, and the rich oily flavor is lacking.

In order to overcome this firmness, some packers process the fruit more rigorously and the result is a so-called "dead olive," a mere hulk of fleshy fibre without character.

The fact that a ripe olive is not deep brown does not mean that it was not a mature olive before being packed. In fact, if every olive is uniformly deep brown to black in color, one can generally look with suspicion on such a pack unless it be very high priced, indicating hand selection and sorting.

If an olive is shaded by the foliage of the tree it will not take on the deep hues, yet it may be fully matured and contain valuable qualities for an elegant final product. The same is true of apples or grapes. The red apple which has been kissed by the sun's rays direct being not appreciably different in flavor from its green, or partly red neighbor which has also been allowed to grow to maturity.

Some packers, eager to have their brands appear to the best advantage, have resorted to an oxidation scheme to change the color of their light colored olive to be uniformly deep brown in color. It is well known that if you take a green olive out of its brine, and expose it to air, it will darken in color. By repeated treatments of this kind, the olives can be all made to appear to be dead ripe, even though they may have been very immature when picked from the tree. While this scheme may not be properly called "artificially coloring," in that no dyestuff is added, yet it is in a class with the sweating of oranges. The Federal pure food authorities are now investigating this practice and undoubtedly will put an end to it. For the lasting good of the California ripe olive industry, let us hope so.

The ripe olive industry has grown wonderfully, and yet its growth has been a steady, continuous one. It was under the same initial handicap as that of the green Spanish olive, in that the first one eaten was not liked as a rule. The taste had to be acquired.

However, each one of the great army of tourists that go to enjoy the winter in California away from the hoary blasts of the east, invariably returns home with the taste of ripe olives hardly short of fiendish in its intensity. This army is being added to each year, and now some brand of ripe olives can be found on the shelf in any grocery that claims to be well stocked enough to cater to the varied demands of the people. Undoubtedly the coming Panama-Pacific Exposition will be the means of educating millions more of our people to know the delightful taste and the food value of the ripe olive. It is true, too, that the ripe olive has food value, being rich in fats and having a good protein content. A ripe olive, properly cured, contains from ten to fifteen per cent olive oil. The ripe olive, particularly in regard to food value, differs materially from the Spanish olive. The latter are picked very green and immature and, of course, no olive oil is as yet developed in them. These are just palate ticklers, or condiments, possessing no food value.

It is a wise policy for the grocer to have quality for his watchword in selecting the brand of olives he puts upon his shelf. The average buyer of ripe olives is discriminating, and has usually traveled a bit and has means to pay for what he demands.

Ripe olives are eaten a good deal like peanuts, one cannot leave them alone till they are all gone. It is not at all uncommon for those fond of them to eat a whole pint at one sitting, so to speak.

The olives are usually graded according to size, and then further selected as to color and choiceness by hand sorting. The machine sorting is done by rolls and the sizes differ by a sixteenth of an inch on the short diameter of the fruit. They are labeled "medium," "large," "extra large," "extra special," etc.

Judging from the growth of this industry, starting in a crude, local way fifteen years ago, the prediction, that in ten years as many ripe olives will be consumed in America as green ones, is not too sweeping, and we can be proud of another peculiarly American institution.

AGRICULTURAL CHEMISTS TO MEET.

THE Association of Official Agricultural Chemists will meet in Washington, D. C., November 16th to 18th.

At this meeting action will be taken on the invitation of the Panama-Pacific International Exposition to hold the 1915 meeting of the Association in San Francisco. Professor Charles B. Lipman of the University of California is expected to be present at the meeting and give a personal invitation to the association to meet in San Francisco.

Unusual prominence is to be given to Agriculture, Horticulture and Live Stock at the exposition and in the Palace of Food Products there will be many exhibits in which the association will be interested.

It has been decided that The American Association of Agricultural Colleges and Experiment Stations will meet in San Francisco in 1915, and The American Association for the Advancement of Science is also planning for a big summer meeting in the convention city.

Without doubt San Francisco will be the popular meeting place for conventions in 1915.

THE NATIONAL DAIRY SHOW.

THE National Dairy Show held in Chicago, October 22nd to 31st, is conceded to have been the biggest show yet held.

It is probable that more people interested in dairy and allied industries visited the show this year than ever before. One feature which added to the large attendance was the fact that nearly twenty-five meetings and conventions were held during the week of the show.

These meetings included such organizations as The National Poultry, Butter and Egg Association, The National Milk Dealers' Association, The American Association of Creamery Butter Manufacturers, The Conference of Secretaries of State Dairy Men's Association, Official Dairy Inspectors' Association, The American Dairy Farmers' Association, National Association of Ice Cream Manufacturers, Cheese Makers Roundup, American Produce Association and various others of a similar nature.

The exhibits at the show were very comprehensive and included an unusually large display from several of the neighboring states, whose Agricultural Experiment Departments, Boards of Health, Food Departments, etc., had well planned displays.

The Illinois Food Commission had an unusually fine exhibit, and this year succeeded in securing space on the ground floor which insured the attraction a much larger number of visitors than would naturally be the case of an exhibit on the second floor where it has heretofore been installed.

The National Dairy Show is without doubt a very important educational factor, not only to the middle west but to all sections of the United States and Canada as well.

TO PREVENT DETERIORATION OF TEA.

Many dealers do not consider tea perishable because it is not easily subject to fermentation or decay, as are many other products, but from the standpoint of flavor or quality tea is extremely perishable, and great care should be exercised in handling it.

In the first place, tea should never be exposed to the air, but should be kept in containers as nearly air tight as possible. The most common source of deterioration of tea is the absorption of the many odors that float about a grocery store. It is frequently found that samples sent in by retailers have not only lost much of their original flavor, but that they have absorbed more of some oil, cheese, fish, or onion flavor than has been retained in the real delightful tea flavor.

Never store tea in a damp basement, or in a room where violent changes of temperature take place. Either evaporation or absorption of moisture will cause tea to deteriorate in quality, and conditions should be kept as nearly uniform as possible. It is advisable to have the tea chest protected by a close fitting glass cover.

CONSERVING FLOUR IN OLD TIMES.

The scarcity of flour drove the privy council of London to some remarkable sumptuary recommendations in 1795, according to the London Chronicle. All families were begged to give up puddings and pies, and the privy councilors announced that they proposed to set an example by confining themselves to fish, meat, vegetables and household bread, partly made of rye. One quarter loaf a week was recommended as the maximum allowance per head, and the loaf should be put on the table for each to help himself, so that there might be no waste. Rich people were urged to do without soups and gravies, to take only the prime cuts and leave the rest for the poor. The poor should be taught how to make soup and rice pudding, rice being a new food which until then had been little used.

Dairy and Food Officials Hold Conference

DAIRY AND FOOD OFFICIALS HOLD CONFERENCE.

DURING the National Dairy Show recently held in Chicago, the visiting dairy and food officials met during the forenoons of Monday, the 26th, and Tuesday, the 27th, in the office of Hon. W. Scott Matthews, Commissioner of Illinois.

The commissioners took up amongst themselves, and with Dr. Abbott, who acted as chairman of the meeting, various matters that were of special and urgent interest.

In attendance with Dr. J. S. Abbott, chemist in charge of State Co-operative Food and Drug Control, Washington, D. C., were:

Dr. Isaac King Phelps, Bureau of Chemistry, Washington, D. C.

Solicitor P. D. Cronin, Washington, D. C.

Dr. L. M. Tolman, chief Central Food and Drug Division, Chicago.

Prof. G. H. Patrick, chief Milk Division, Bureau of Chemistry, Washington, D. C.

Dr. H. E. Barnard, Food and Drug Commissioner of Indiana.

Dr. F. H. Fricke, Food Commissioner of Missouri.

Mr. E. G. Bennett, Dairy Commissioner of Missouri.

Mr. John Fricke, Chief Inspector, Tenn.

Hon. R. M. Allen, Commissioner of Kentucky.

Hon. Lucius P. Brown, Commissioner of Tennessee.

Hon. W. B. Barney, Commissioner of Iowa.

Mr. John McCabe, Assistant Commissioner of Minnesota.

Commissioner B. L. Purcell of Virginia.

Dr. David Klein, State Analyst of Illinois.

Dr. Force, charge of the Cincinnati Laboratory, Bureau of Chemistry.

Dr. Blume, Cincinnati, O.

Dr. Carl O. Seaman, Manchester, N. H.

Wallace F. Puerington, Concord, N. H.

Robert Young, Chief Inspector, Central Food and Drug District, Chicago.

Dr. S. H. Barrett, Chattanooga, Tenn.

George Draper, Nashville, Tenn.

W. B. Billingsley, Baltimore, Md.

Richard White, Aurora, Ind.

Dr. W. J. Graf, Cincinnati, O.

F. W. Tucker, Indianapolis, Ind.

S. Mawer, Columbus, O.

Harry S. Mesloh, Columbus, O.

C. L. Hutchins, Winchester, Ind.

Bert W. Cohn, Indianapolis, Ind.

The Hon. W. Scott Matthews, commissioner of Illinois, was ill at his home Monday and Tuesday, but arrived in Chicago Wednesday and spent Wednesday and Thursday with the commissioners and attended the various conventions, but his illness obliged him to return to his home Thursday evening.

As will be noticed by the names and locations, all sections of the country were represented by the commissioners or those in active field work deputized by the departments to attend. A great many inspectors who had come to attend the sessions of the National Milk Inspectors' Association attended these sessions, and it might be said that most of the commissioners

attended the sessions of the Milk Inspectors' Association.

During the sessions in Commissioner Matthews' office a discussion was led by Professor Patrick of Washington on the present milk standards and their usefulness. A discussion of the latest methods of definitely determining the addition of water to milk. It was moved by Commissioner Allen of Kentucky, and seconded by Dr. Barnard of Indiana, that Dr. Abbott be requested to collect for the commissioners data from all sources, on fatty and nonfatty milk. The motion was carried.

There was a lively discussion of the bacteria count in market milk. There was a very interesting discussion regarding the scoring of dairies and milk depots. Some criticism was expressed on the card now in use, and it was moved by Dr. Barnard and seconded by Dr. Blume, that Chairman Abbott notify the committee who has in hand the revision of the score card, that they earnestly request them to give a larger proportion of the total score to method and less to equipment, and, if possible, to let those interested see a copy of the revised card before it is adopted.

A lengthy discussion took place on the opportunity and methods to be used in co-operation between Federal and State Inspectors, particularly regarding the sanitation of food manufacturing and handling establishments. Dr. Abbott gave a detailed account of the work his department was doing and of his efforts to secure and get into the hands of the different commissioners at as early a time as possible, the reports on decisions and seizures.

Quite a discussion was had as to what is or is not an original package. Solicitor Cronin gave some valuable information along that line.

The following resolution was introduced by Dr. Barnard and seconded by Dr. Brown:

Resolved, That we in conference assembled at Chicago, representatives of the State Food, Dairy and Drug Departments of the States of Indiana, Illinois, Missouri, New Hampshire, Minnesota, Michigan, Virginia, Tennessee and Kentucky, express to the Federal Bureau of Chemistry our appreciation of the efforts now being made to promote co-operation among individual states and between the states and the Federal Government, and our approval of the activity, enterprise and judgment shown by Dr. J. S. Abbott in promoting such work.

Motion unanimously adopted.

JOHN B. NEWMAN,

Assistant Commissioner Illinois, Secretary of the Conference.

Commissioner Winkjer of Minnesota, Dairy Commissioner Heine of Kansas, Assistant Commissioner Schrock of Oregon, and George L. Flanders of New York were in Chicago, but were obliged to attend other meetings which had been previously arranged.

Monday afternoon the various commissioners attended the session of the National Poultry, Butter and Egg Association, which was held at the Sherman House, to listen to a discussion led by Commissioner Allen of Kentucky. After Commissioner Allen had read his paper, Commissioner Barnard of Indiana

spoke, as did also Commissioner Brown of Tennessee and Dr. Abbott of Washington. Mr. Priebe of Chicago, and others, spoke on behalf of the egg men. That evening the commissioners were the guests of the National Poultry, Butter and Egg Association at their banquet.

Tuesday afternoon part of the commissioners attended the sessions of the Illinois Ice Cream Association and the session of the Illinois Butter Manufacturers, where cream grading was discussed. Tuesday evening they were the guests of the American Butter Manufacturers at their banquet.

Through the remainder of the week these men were kept busy in attending sessions of various interests—the National Dairy Union, Dairy Instructors' Association, different cattle breeders' meetings, etc. At the National Dairy Union, presided over by Mr. George L. Flanders of New York, they listened to Mr. Flanders' address. At the luncheon of the Dairy Council, Mr. Flanders made another speech.

Many times during the conference the expression was heard that there should be more conferences of this kind, that a good deal of real work was accomplished and much benefit attained. There is no gathering in the country which brings together the associations of so many food manufacturers as does the Dairy Show. The commissioners and inspectors were able to hear very valuable papers and discussions and met with men with whom they could discuss different problems of interest, men who were behind the gun and knew. All through the show at these various gatherings the spirit of co-operation was shown and the efforts of the department at Washington and the various state departments were appreciated by the manufacturers, as were the efforts of the manufacturers and associations appreciated by the control officials.

PARCEL POST MARKETING.

PARCEL POST marketing of food products is receiving so much attention in this country at the present time that it is interesting to note what success in the way of getting foods to the consumer direct via post is being had in other countries.

As is well known the parcel post system is an old feature of the postal service in numerous foreign countries, while in the United States we are in the experimental stage.

There was a great deal of opposition to the establishment of the parcel post system in this country, especially from retail distributors, and the experiments that are now being made by the Post Office Department are being very carefully watched.

We had an article of some length on the subject of this kind of marketing by Mr. Charles J. Brand, Chief of the Office of Markets, Department of Agriculture, in the October number. Our readers will accordingly be interested in learning of some experiments that have been made in other countries, in sending produce through the mails.

The Daily Consular and Trade Reports, in a recent issue, contains an article from the Sydney Herald on what is being attempted in Australia. It is stated that the system of sending produce by post in the state of Victoria has become important, and that if it ever produces the results that some people expect of it, it will revolutionize the old system by which food of Australia is distributed, by eliminating the middle man as far as it is possible to do so.

This statement to the American mind will seem quite

drastic, for our system of food distribution is, for the most part, somewhat complex. Whether parcel post marketing will simplify it very materially, to any considerable number of people, remains to be seen.

The article referred to from the Sydney Herald reads in part as follows:

The "produce-by-post" system, which is to be introduced in this State (New South Wales) also, is a scheme by which, provided the farmer packs his produce in the manner required and fills in the necessary form, the post office will undertake to deliver that produce at any place to which it is addressed. If honey, eggs, cream, bacon, vegetables, and other produce can be sent straight from the farm to the consumer it can be imagined how both the farmer and the consumer may benefit in the matter of price. The discrepancy between the prices, for example, of fruit or of fish, when they leave the original producer and when they arrive at the consumer's table, is often enormous. The object of the "produce-by-post" system is to do away as far as possible with the excessive increase in price which sometimes intervenes.

The Melbourne Argus states that hitherto packages of produce conveyed by goods and mixed trains have been delivered in the city and suburbs for the railway department by a firm of carriers on payment of 8 cents per packet in addition to the freight charge. Contractors also delivered the parcels sent through the post office. For the future the postal department, with speedy motor wagons, will deliver its own parcels and the produce received from the railways. In normal times delivery of all the articles, produce, or ordinary parcels will be completed by 4 p. m.

Eggs and fruit predominate among the goods carried. It is also proposed to convey vegetables, flowers, Australian cider, bread, pastry, honey, butter, cream, cheese, ham, bacon, meat, rabbits and hares, poultry, fish, game, and butchers' small goods. The railway department will receive the goods on payment of the special rates and the postal delivery charges and will convey them to Melbourne. Country post offices will not receive any goods—all must be sent from a railway station. The total cost of railway freight and delivery of certain items included in the list is as follows:

PASSENGER TRAINS.

Fruit, flowers, bread, pastry, butter, eggs, cream, meat, rabbits, hares, poultry, fish, game, butchers' small goods.						
	3	7	14	28	42	56
	pounds.	pounds.	pounds.	pounds.	pounds.	pounds.
Miles.	Cents.	Cents.	Cents.	Cents.	Cents.	Cents.
25	18	18	18	18	25	25
50	20	25	25	29	29	35
101	25	25	25	31	41	49
150	25	25	25	37	49	61
200	25	25	31	43	59	73
250	25	27	35	47	65	79
300	27	29	37	53	71	85
400	31	33	43	59	80	97

GOODS AND MIXED TRAINS.

Fruit, vege- Honey, butter, tables, cider, eggs, cream, and Austral- cheese, ham, ian wine. and bacon.				
	30	60	30	60
	pounds.	pounds.	pounds.	pounds.
Miles.	Cents.	Cents.	Cents.	Cents.
25	20	25	20	25
50	25	31	25	31
101	25	31	29	37
150	29	37	33	43
200	29	37	37	49
250	29	37	37	49
300	33	43	43	55
400	49	61	49	61

Note.—The rates for city parcels will be 6 cents each less than the above, and fish, rabbits and hares will be carried at slightly lower rates than above.

A comparison of the parcel post rates given in the table above with those we published in the October number in connection with Mr. Brand's article, will be interesting. It will be noted that the Australian system permits the shipment of packages of larger weight than our system as yet embraces, and while the system of computing rates is, of course, different from ours, a comparison shows that the charge averages considerably higher.

Meat Packers Meet in Convention

THE ninth annual meeting of the American Meat Packers' Association was held in Chicago October 19th, 20th and 21st. This meeting brought together packers from all over the United States, an unusually large attendance being had.

It seemed to be the consensus of opinion of the packers that at a time like the present when the business situation is more or less unsettled in many lines, the need for co-operation and consultation is unusually great.

During the past year the meat packing industry has faced many important considerations and every phase of the industry was discussed exhaustively.

The president, in his annual address, reviewed at some length the attitude of the pure food officials toward the meat packing industry, and the effect of the various state and national laws. It was the opinion of President Craig that we are fast approaching the time when industries of all kinds will be conducted under strict regulation and control by the government, and he expressed the opinion that it would be well for meat packers to consider the effect of this tendency upon their business. The process of evolution which all forms of enterprise are undergoing, as he stated, is nowhere more apparent than in the disposition of the state to control the manufacture and sale of food products. In his remarks President Craig stated in part:

"The early expressions of this tendency in State laws and city ordinances were crude and radical in their nature, owing to the ignorance and intolerance of those who formulated them. It is said that all worthy reforms are preceded by a period of fanaticism, in which the advocates of the reform usually exaggerate the evils and propose wholly impractical remedies. When these remedies are enacted into laws their enforcement is often given over to men who lack both the wisdom and the willingness to interpret them fairly.

"Certainly no industry has been the subject of harsher treatment at the hands of the public authorities, in the beginning of this period of regulation, than our own. And it is to our credit that we have survived this treatment, until the respect and confidence to which we were fairly entitled has been, in a measure, restored to us.

"The outcome has been an increasing number of regulatory laws, both Federal and State. But, happily, their enforcement is now, for the most part, in the hands of men who are well informed and disposed to be just and reasonable. It is our duty to treat them in the same spirit of fairness, as the best results can only be obtained in that way. Back of these laws is a sound and healthy public sentiment, which we cannot fail to recognize and respect.

"Unfortunately, these regulations, as I have already intimated, lack the element of permanency. We are no sooner settled in a form of label or method of manufacture and sale than a new and different form or method is required, and more or less expensive changes are made necessary. This is one of the greatest hardships with which we have to contend, and there seems to be no escape from it, so long as such broad and indefinite powers of supervision and control are given to executive officials.

"But the burden can be very much lightened by an intelligent and honest attitude upon our part whenever controversy arises. It is not always well to yield to a ruling, especially if it works an unnecessary hardship. Both Federal and state officials are frequently influenced to change their minds, where their attitude can be shown to be unwise or unjust.

"Moreover, there is a tendency on the part of the public officials having to do with the enforcement of food laws, to overstep their authority and impose burdens not contemplated by the statute. Such an attempt should be promptly challenged.

"In regard to marking goods, it is very doubtful whether the bureau may lawfully regulate anything more than the

outer container in which the product is shipped.

"The most noticeable developments in the past year, in respect to the supervision and control of our business by department officials probably are:

"(1) The new life which has been put into the Federal Food and Drugs Act by the energy and enterprise of Doctor Carl L. Alsberg, chief of the Bureau of Chemistry, and

"(2) The avowed intention of the Bureau of Animal Industry to co-operate with him in the enforcement of this law.

"It should be said that Doctor Alsberg is bringing to bear upon the administration of the Federal Food Law a high degree of intelligence and a spirit of fairness which is truly commendable. Yet it has resulted in the imposition of standards and limitations never before known.

"The intention of the Bureau of Animal Industry to co-operate in the enforcement of this law, with its drastic power to virtually close our establishments by withdrawing Government inspection if we fail to comply with its requirements, gives to this statute a potency heretofore unknown in the history of this character of legislation. Moreover, it puts us upon a wholly unequal basis with other manufacturers of food products. It remains to be seen whether the Bureau of Animal Industry is in a position to lend its aid to the enforcement of a law not expressly within the scope of its powers and duties.

"Within a year a complete revision of the rules and regulations of the Bureau of Animal Industry has been promulgated; the Bureau of Chemistry has issued an elaborate set of rules for the application of the net weight provision of the Food and Drugs Act; state food officials are becoming more and more alert to detect violations of their statutes; and the legislative mind is keen to exercise its creative faculties in order that we may not slumber in well doing.

"We cannot fail to commend the efforts of those having to do with the enforcement of the Federal Food and Drugs Act, in so applying the law as not to impose unnecessary hardships. Their exemption of wrapped hams and bacon from the package class, so that the weight is not required to be marked thereon, is a typical illustration of their broad and sensible views in this respect. Their attempts at a uniformity of laws in the various states is highly commendable. Conferences have been held in Washington and elsewhere, with a view to a better understanding of the proper and rational scope of food laws, and many of the radical provisions of the state laws have, in consequence, been practically swept into the discard.

"There is still much hardship suffered by members of this association through the conflict in laws and regulations in the various states, which time may remedy, though apparently not while the present food commissioners are in office.

"For example, shipments of product from Detroit to a wholesale merchant in St. Paul, for sale in the Northwest, may fully comply with the Federal laws and the laws of the state of Minnesota, and yet violate the laws of Wisconsin and North Dakota.

"There is no sound reason for this variation in laws. Methods of business which conform to the highest standards of trade in one state should be sufficient in another. Industries are coming more and more to be national and international in their scope, and where, as in our industry, there is a thoroughly modern and comprehensive Federal statute covering the manufacture and sale of food products, the state laws should yield, insofar as they are in conflict therewith. Otherwise we are unjustly hampered in the natural and proper development of our business."

The subject which came up for a considerable amount of attention, was the question of meat shortage and what could be done in the way of taking steps to remedy the situation. A year ago the meat packers' association appointed a committee to make investigations along this line, but a very short time later the federal government decided to undertake a similar work and appointed a commission to go into it properly, so the packers suspended their proceedings upon the action of the government.

Dr. Beverly T. Galloway, former Assistant Secretary of Agriculture is chairman of the Federal Com-

mittee on the meat situation, and gave the convention a report in some detail as to the work which the committee has been doing. This address of Dr. Gallo-way's is of such importance that we are publishing it in full.

As your association doubtless knows, there is an increasing shortage in meat animals in this country, and the cost of meat products to consumers is high as compared with former years, yet the growers complain that under the changed conditions the raising of meat animals is no longer profitable.

Realizing the gravity of the situation, the Secretary of Agriculture appointed a committee last winter to study the meat situation in this country and abroad, consisting of the then Assistant Secretary as Chairman, Dr. A. D. Melvin, chief of the Bureau of Animal Industry; Dr. T. N. Carver, director of the Rural Organization Service; Dr. H. J. Waters, president of the Kansas State Agricultural College; Professor C. F. Curtis, dean and director of the Iowa State Agricultural College, and Professor H. W. Mumford, professor of Animal Husbandry in the State University of Illinois.

The committee held several meetings during the winter and spring months of 1913-14, canvassing the entire situation thoroughly and agreed upon a program on March 30, 1914, a copy of which I take pleasure in handing you herewith.

You will note that on page one of the program the problem before the committee is defined, that on pages two to four, inclusive, the scope and character of the investigations are outlined in some detail, that on page five the assignment of different portions of the investigations to be carried on by the different branches of the United States Department of Agriculture which are directly concerned in work of a similar nature is indicated, and that on page six the statement is made that as results are secured by the specialist in carrying on the investigations they will be reported to the committee, which will act as a jury in analyzing and summarizing the material collected and in formulating definite conclusions and recommendations.

Work was undertaken by specialists in each branch of the Department of Agriculture in accordance with the program, and I am advised that excellent progress has been made. The statistical work assigned to the Bureau of Crop Estimates (formerly Bureau of Statistics) has reached an advanced stage. Much of the work assigned to the Bureau of Animal Industry and the Bureau of Plant Industry is also making good progress.

Certain special investigations, however, such as the carrying capacity of ranges, the cost of producing and finishing meat animals on farms, the study of conditions in typical areas, and data with respect to operations involved in the handling of typical car lots of animals from different regions through the feed lot and intervening stages to the retail dealer and ultimate consumer, all necessarily require considerable time, so that it is not likely that the committee will be in a position to correlate, analyze, and interpret data covering all branches of its inquiry until some time next January.

In the meantime, on behalf of the committee, I take this opportunity to express the hope that the committee may count on the co-operation of your association and its members, especially in the matter of accounting for the detail items of expense attached to each operation between the purchase of live stock from the growers to the final distribution and sale of the products to the retail dealers.

It is recognized that the business of meat packing, storage, distribution and marketing is highly specialized and most complicated, and it is, therefore, one of the most difficult parts of the investigation undertaken by the committee. Your association is undoubtedly in a position to greatly facilitate this branch of the inquiry.

I can assure you that the investigation of the committee appointed to study the meat situation is entirely non-partisan and unbiased, and its sole object is the ascertainment of facts of vital importance to the meat producers and consumers of this country. When the facts are ascertained, they will be summarized and reported without fear or favor.

It is hoped that the fundamental and economic causes of the present meat shortage can be pointed out, and that a constructive program can be formulated to relieve the present unsatisfactory conditions. If this result can be accomplished, I am sure it will be of great and permanent value to the country, and I feel confident that it is a work in which the American Association of Meat Packers can and will co-operate most effectively.

PROGRAM OF WORK FOR THE COMMITTEE.

(Dated Washington, D. C., March 30, 1914.)

Certain conditions have developed in connection with the business of meat production in this country which require study. The number of animals available for slaughter appears to be decreasing relatively to population and the price of meat to consumers appears to be increasing.

Gradually there has developed a great system of centralized slaughtering, while the small butcher seems to have disappeared in many sections. This centralization of slaughtering has resulted in many economic innovations in methods of production and marketing of meat animals and in the manufacture, distribution and marketing of meat products.

Coincident with these changes in the economics of production, distribution and marketing there have been far-reaching changes in the western range situation. The best range lands have been taken up and for many years have been overstocked. With few exceptions, there are no states having adequate laws for the protection of public lands, nor are there adequate laws for the protection of the public lands of the Federal Government except in the forest reserves.

It would therefore seem advisable to make a careful study of the situation in order to determine what action, if any, should be taken to improve conditions. Necessarily, such a study should be wide enough and extend back far enough to make sure that the facts are adequate for the purposes of the investigation.

PROGRAM OF THE INVESTIGATION.

It seems desirable to approach the problem through a study of the subject under two general heads:

First. A general investigation of the production and consumption of meat animals, including cattle, sheep and swine, in the United States and the principal foreign countries which compete with the United States.

Second. A general investigation of the methods of producing, finishing, marketing, slaughtering and distributing meat animals and meat products, to determine what should be done to increase meat production in the United States.

Under the first head, production and consumption, data should be compiled showing for such meat importing countries as England, France, Germany and Belgium, their growth of population by decades, the increase or decrease in the number of meat animals and quantities of animal products which they produce, their per capita production of meat animals, the number of meat animals and quantities of meat products which they import and the countries from which the imports are made, their total per capita consumption of meats of different classes, and wholesale and retail prices. Similar information should be obtained for the principal exporting countries, such as Canada, Mexico, Argentina, Russia, Australia and the United States, showing the number and classes of meat animals and meat products exported and the countries to which the exports are sent.

This investigation will be in the nature of a statistical survey of the population, the per capita production and consumption, supply and demand, imports and exports, of meat animals and meat products in the principal meat producing and meat consuming countries of the world.

STUDY OF PRODUCING MEAT ANIMALS.

Under the second head, a careful study will be made of the methods of growing meat animals in different sections of the United States and in foreign countries; how breeding operations are financed; of producing areas and methods of increasing their carrying capacity on farms and ranges, including improved methods of pasture and range management, the growing of catch crops, increasing yields of grain for feeding purposes by increasing the fertility of the soil with manure as a by-product of stock raising, and the practice of utilizing meat animals as scavengers; methods of developing new meat producing areas in the eastern mountain country from Maine to Georgia, in the cotton belt, on the sugar plantations of the South, and in the northern tier of states, especially Wisconsin, Minnesota and the Dakotas, where corn will not mature for grain, but may be utilized for silage.

A special study will also be made of methods of financing feeding operations; present sources of feeding materials, quantities produced, quantities utilized; farm, wholesale and retail prices; extent to which the present supply of feeding materials can be utilized at home instead of being exported; possible new sources of feeding materials, such as legumes grown in rotation with other crops, also to what extent the efficiency of existing feeding materials can be increased by a wider application of the results of special nutrition investigations.

A detailed study of the cost of producing and finishing meat animals on farms and ranges will be made under this section, typical areas being taken, such as Lancaster county, Pa., for the East; Alabama, Louisiana and Texas for the South; Iowa, Kansas and Illinois for the corn belt; Wisconsin and Minnesota for the North, and Idaho and Arizona for the West.

Typical carloads of animals from the different regions will be followed through the feed lot, the commission man, the slaughter house, the refrigerator car, the storage warehouse, and the retail dealer, and an accurate record will be kept of just what happens at each stage, showing the amount received by the producer and by each agency between the producer and consumer, what the consumers paid, and what becomes of the difference or spread in prices; these methods to be compared with similar data from foreign countries where available.

LOOKING INTO THE MARKETING END.

The economics of marketing meat animals is deserving of the most careful study because of its effect on production and on cost to consumers, and to this end the committee will endeavor to ascertain whether there is or is not unnecessary transportation of meat animals between farm, range, feed lot, and packing center, and whether or not there is room for improvement in this respect. A study should also be made of the methods and cost of marketing through local abattoirs as compared with centralized slaughter houses both in the United States and in foreign countries.

In studying methods and cost of distributing and selling meat products the committee will endeavor to determine to what extent the centralization of the packing industry is the result of economics of operating on a large scale, and to what extent it is due to advantages of buying and selling on a large scale; to what extent the size of the packing plant determines the size of the selling organization, or the contrary; and to what extent, if any, the immense size of the large packing houses enables them to manufacture more economically and to sell more cheaply than their smaller competitors.

With the results of the investigations outlined herein before it, the committee will proceed to determine what conditions existing in the business of meat production, manufacture, marketing and distribution are uneconomical, and to recommend such measures as in their judgment will lead to increased production and a more economical and efficient system of marketing and distribution in this country.

HOW THE WORK HAS BEEN DIVIDED.

The compilation of data and such special investigations as are required will be carried on by the various bureaus of the Department of Agriculture which are directly interested, as follows:

The Bureau of Statistics (Crop Estimates) will compile data regarding production and consumption, producing areas, and present sources and quantities of feeding materials, and will co-operate with other branches of the department and with the committee by compiling such other data as may be required.

The Bureau of Animal Husbandry, in co-operation with the Bureau of Plant Industry, the Forest Service, the Rural Organization Service, and the Office of Markets, will investigate and report upon the carrying capacity of producing areas, the development of new producing areas, the greater utilization and efficiency of feeding supplies, the financing of breeding and feeding operations, methods and cost of producing, marketing and slaughtering meat animals, and the marketing and distribution of meat products and by-products.

The Bureau of Plant Industry will investigate and report upon methods of increasing the carrying capacity of producing areas and possible new sources of feeding materials, and in co-operation with the Bureau of Animal Industry, the development of new producing areas and cost of producing meat animals on farms.

The Forest Service will investigate and report upon methods of utilizing and increasing the carrying capacity of ranges and, in co-operation with the Bureau of Animal Industry, on the cost of producing meat animals on ranges.

The Rural Organization Service, in co-operation with the Bureau of Animal Industry, will investigate and report upon organization and methods of financing, breeding and feeding operations.

The Office of Markets, in co-operation with the Bureau of Animal Industry, will investigate and report upon methods

of marketing meat animals and distributing and selling the products.

As results are secured they will be submitted from time to time to the committee which will act as a jury and suggest, through its chairman, such additional data as may be necessary to enable it to reach unbiased conclusions and justify definite remedial recommendations. The work assigned to the various bureaus will be undertaken at once and finished as soon as practicable.

Mr. James E. Poole of the *Chicago Live Stock World* gave a very interesting address on "Live Stock Prospects" in which he dwelt at considerable length on the disastrous effects of reduced production, and the consequent inability of the consumer to get an adequate supply of meats at reasonable prices. Dwelling upon questions of the price situation Mr. Poole spoke of the production-repressive factors, and stated that these may be briefly enumerated as, "an unfavorable financial situation, discontent of the producer, inimical federal and state legislation, transportation handicaps and predatory animals. Relief in each case must be supplied if the cattle herd and sheep flocks of the nation are to increase and multiply."

Coming to a point which has been a favorable theme for newspaper writers when commenting on the general situation of shortage in trade production, Mr. Poole said:

"Next to the financial problem comes the necessity for constructive federal and state legislation. Until Washington tackles the public domain problem from an intelligent angle, increase in cattle and sheep supply will be doubtful. There exists a popular but erroneous impression that the trans-Missouri pastoral region is undergoing an evolution process. Uninformed writers prate glibly on the cutting up of the big ranches and conversion into farms, whereas, outside Texas, the land grants and Indian reservations, the so-called big ranches existed only in imagination.

"In the halcyon days of the western cattle and sheep industry beef and mutton was made largely on what was known as the community range, a vast common, where grass was free. The business as it then existed was a mere gamble with the elements, and its tenure was naturally brief. But the same grass is there, and more feed is now going to waste than was utilized before the industry was liquidated. Had Washington handled the national real estate problem with any degree of intelligence, present lamentable conditions would not exist, and until a sane policy toward the public domain is adopted by our national legislators improvement is impossible.

"As a preliminary a survey should be taken of the purely pastoral lands, railroads should be required to convert their holdings into solid tracts, instead of the present alternate section system, and when the grazing capacity of the public lands has been determined they should be leased for livestock raising purposes for such terms as will permit the lessees to make the improvements essential to successful livestock raising."

One of the important resolutions passed by the convention related to the tax on oleomargarine. The meat packers declared themselves as opposed to the government tax on this product and congress was asked to repeal the tax or reduce it to as low a point as possible.

The election of officers for the ensuing year resulted in the selection of the following:

President—John J. Felin, J. J. Felin & Co., Inc., Philadelphia, Pa.

Vice-president—Howard R. Smith, Jones & Lamb Co., Baltimore, Md.

Secretary—George L. McCarthy, The National Provisioner, New York, N. Y.

Treasurer—Max N. Agger, J. C. Roth Packing Co., Cincinnati, Ohio.

WELL EXPRESSED VIEWS.

THE following extracts from the speech of Thomas P. Sullivan, Democratic candidate for Congressman-at-Large, delivered before a meeting of Chicago business men, may prove of interest to our readers:

"I am going to relate to you right here a story of an industrial center. It happens to be fresh in my mind as I drove out there the other day. It is the town of Argo, in the county of Cook. I learned from the manager who has charge of this branch of the Corn Products & Refining Co., that they employ there 1,200 men, and they run seven days a week and twenty-four hours a day. With 1,200 men employed in the plant there are 6,000 people supported from the Argo plant, as the average family will consist of five persons, and five times 1,200 is 6,000. Here we have a town with stores and schools and churches, everybody prosperous, everybody happy, living either directly or indirectly from the employment given by those who planned and built the Argo plant.

"Now Argo plant represents an industrial community and this country has thousands of the same kind of propositions, and many of those industrial concerns are subject to the laws passed by law-making bodies, and don't you agree with me it would be only fair and just to such manufacturers as these to have men take part in the formulation and passage of laws who understand business conditions from a practical point of view?

"Don't you agree that a man who understands business conditions such as these is better qualified to legislate, to supervise, to inspect industrial and commercial enterprises, than one who has probably never seen the inside of a manufacturing institution in his life, who has never spent one day in the commercial world, who spent his time bent over books, night and day, who has gone to school, then to college and become a professional man? I believe he is not fully equipped by the theoretical knowledge he has obtained in the acquirement of his profession to rule commercial enterprises as they are carried on in this, the twentieth century.

"This country today, is suffering from too many laws, suffering from too much legislation by those who would legislate for personal glory and appeal thereby to the galleries for applause, unmindful of the fact that the law that caused this applause will in time work a hardship on the whole community."

WAR FOOD PRICES A CENTURY AGO.

History appears to be repeating itself in many ways just now. A hundred years ago all Europe was at war trying to hold back the Napoleonic flood of imperialism and militarism and prices of food were soaring much as they are today. In the unearthing of an old day book kept by Abraham Pickett, a storekeeper of Edwardsville, Ill., a town which was at that time a center of fashion in the state, an interesting sidelight is thrown on the retail selling prices of some of the necessities of life nearly a hundred years ago.

This document, as quoted by the "Industrial Grocer," and bearing the initial date July 14, 1819, gives an idea of what the men and women of Illinois bought the year after that state was born and what they had to pay. One entry explains why wooden pegs were used instead of nails in the building of houses and barns. The charge for 104 pounds of four-penny nails was \$39, or nearly 38 cents a pound.

In 1813 beef and pork were 4 to 6 cents a pound and flour \$8 to \$12 a barrel. Corn was worth 33 to 50 cents a bushel and wheat \$1. These cereals dropped in the market next year to 15 cents for corn and 37 cents for wheat.

One entry shows that the housewife had to pay \$1.25 for five pounds of sugar. Another entry on the same day showed that one brand of sugar cost 33 1-3 cents a pound and that pepper brought at retail 37 1/2 cents a pound.

Items for wine scattered here and there through the book indicate that the beverage sold for \$6 a gallon and that home-made brandies brought a like return to the merchant. Empty bottles were not thrown into alleys or garbage barrels a hundred years ago. For a quart receptacle of this kind 25 cents was charged. In other words, the bottle was worth two-thirds as much as the whisky it held. One bridle cost \$2, a pair of moccasins 50 cents, seven panes of glass \$1.31, a pitcher 87 1/2 cents, a dozen needles as many cents, a teacaddy \$1, and a pound of tea \$4.

THE GREAT CHICAGO STOCK SHOW.

It should be understood that the purpose of the International Live Stock Exposition, which will this year be held from November 28 to December 5, is the improvement of the live stock of the nation. It is educational in its nature, aims, methods, and results. It brings together annually from 6,000 to 10,000 of the world's choicest animals, to be judged in upwards of 600 classes, in competition for over 2,600 cash premiums aggregating more than \$75,000, besides other numerous valuable prizes, trophies, medals of honor, etc., and holds constant business sessions during the week composed of the foremost live stock representatives of the world, also a series of brilliant evening horse fairs and displays of premium live stock in the arena, with music and special features, all for the purpose of instructing the eye and the mind of the producer of live stock to the importance and necessity of better methods and the greater profits to be derived from raising the better kinds of farm animals, thus expanding and improving the industry throughout the nation, and increasing greatly its agricultural prosperity. In short, it is a vast object lesson intended for the improvement of the live stock of the United States, the upbuilding of public confidence in the health and excellence of American animals and meats, and the creation of a better demand for them at home and abroad.

DEMAND FOR VEAL INCREASING RAPIDLY.

"The demand for veal has increased rapidly, and not only are the surplus dairy calves slaughtered but thousands of beef calves as well, until a calf will now sell for from \$8 to \$12 when only two or three months old."

This quotation from Farmers' Bulletin 588 of the United States Department of Agriculture means that unless the farmer has unlimited cheap feeds, it is usually more profitable to market the dairy or dual-purpose calves than to attempt to raise them, even though some of them might make good steers. While many deplore this heavy slaughter of calves, and legislation against it has been urged, the consumer's demand must be met.

While the number of cattle has decreased, the demand for meat has naturally grown until not only have the exports nearly ceased, but the packers, that they may provide cheaper meat, are now buying many cattle that were formerly fed. The farmers who formerly bought nearly finished cattle as feeders have been compelled to pay higher prices for such cattle or to take thinner animals.

The cattle-feeding business has changed greatly during recent years. Formerly steers from four to six years of age were fed in large numbers on commercial feed at yards near granaries or mills, or upon large farms where only the roughage was grown, and the cattle were kept on full feed for six months or longer. This method became too expensive, so feeding is now conducted upon farms as a means of marketing farm products by converting them into beef, while the manure produced is utilized as a by-product for maintaining fertility.

OBTAINING WEIGHT OF ICE BY MEASURE.

At the instance of the Natural Ice Association of America, a 36-inch ruler is being distributed to consumers of ice who have no facilities for finding the weight of the ice received by them. According to the "Refrigerating World," this ruler folds to one foot length and is graduated like a yard stick. It bears the name and address of the dealer and has on the back data as to the weight and volume of ice. A table is worked out giving the weights of a large variety of blocks of the usual dimensions. The weight of a piece of ice 22 inches square is given as 16 pounds for each inch of thickness, while a cake 22 by 32 inches is said to weigh 25 pounds per inch thickness. For finding the weight of pieces of other dimensions the rule is to multiply length by width by height and that product by .532; then divide this result by 16. A simpler rule is to divide the total volume of the ice in cubic inches by 30. The ruler is said to be useful for "weighing" both natural and artificial ice. In Los Angeles, Cal., the weight by measure scheme has been used for some time for artificial ice.

The National Coffee Roasters' Association will hold its fourth annual convention at New Orleans November 16 to 19 inclusive.

"Made In America" Cheese

THE patriotism of American citizens is being appealed to by commercial interests all over the United States at the present time through an effort to promote the idea of a preference for American made goods.

There are a good many people in this country who for one reason or another, have grown to consider anything which came from a foreign country as more to be desired than that which is produced in our own United States. It is a well-known fact that garment workers, for instance, have habitually purchased thousands upon thousands of foreign labels to be placed upon products which they make in factories in this country, in order to cater to the idea of the superiority of foreign made goods which so many Americans have fostered in themselves.

It is commonly acknowledged that the three words, "Made in Germany," have been worth millions of dollars to German manufacturers, and likewise it has long been known that this phrase has appeared on an enormous amount of American manufactured goods.

The situation caused by the European war and the necessity for finding outlets for American manufactured goods, as well as a new source of supply on items usually imported from European countries, has created an opportunity for American manufacturers to inaugurate a "Made in America" propaganda of which they were quick to take advantage.

The United States Department of Agriculture apparently is inclined to do its share in furthering the "Made in America" idea, and has just sent out from the office of information, an article in which attention was called to the great opportunity for manufacturers to build up a reputation for American cheeses.

The statements in the article are particularly timely and we are publishing it in full.

American cheese makers are being urged by the U. S. Department of Agriculture to take advantage of the present excellent opportunity to establish a reputation for their products that will outlive the present disturbance in international commerce. European cheeses have long been popular in this country, and it is a popular belief that they cannot be equaled by the domestic product. For example, in the fiscal year ending June 30, a total of 63,784,313 pounds of cheese were imported into this country. It is not yet possible to say to what extent this trade will be interfered with by the war, but it is certain that the imports for the current year will be much less than they have been in the past.

There is no reason why some of this deficiency cannot be made good at home if the farmers will furnish the milk. Already American cheeses have been made which rank, in the opinion of experts, fully as high as foreign cheeses of the same class. The popular preference for the imported products, however, has hitherto prevented these cheeses from selling on their own merits in competition with European produce.

One of the most striking instances of this is Limburger cheese. In quality and price American cheese of the Limburger type long ago drove its foreign rival out of the market. Practically no foreign Limburger has been imported into this country for many years. Many consumers, however, have clung to the belief that they were eating a foreign cheese. There is no reason at all, why they should not now know that the American product is exactly as good as the foreign. Moreover, now that some of the more expensive types of highly flavored foreign cheeses are not likely to reach us for a long time, the demand for domestic Limburger should be greatly increased. The market thus created should remain a good one long after the present conditions have been remedied; for once the consumer becomes accustomed to the American product he is not likely to abandon it for a more expensive foreign one which is no more satisfactory.

Much the same is true of cheeses of the kind popularly described as Swiss. Cheese of this variety is made exactly as well at home as abroad. In the past, it is true, American makers have been confronted by several difficulties, but government investigations have solved many of these problems and it is now possible for expert cheese makers to turn out Swiss cheese of uniformly high quality.

Camembert has been made in America with some success already. This variety has suffered more, however, from actual opposition by the promoter of the imported article than other kinds. Camembert is ripened quickly and reaches the consumer within a month of manufacture. This is, therefore, an opportunity for the American maker freed from competition to sell his article and by the fuller opportunity to work his factory, to perfect his method to such a degree as to hold that market when competition returns. Though more perishable than Cheddar, Swiss and some other varieties, this should not prove to be a serious obstacle to increasing the output, for Camembert of the best quality always commands a good price.

In addition to Camembert, there are a number of other fancy foreign cheeses which are popular here and which could doubtless be imitated successfully by American cheese makers after a little experimental work. Among these varieties are Edam, Gouda, Parmesan, Roquefort, Stilton and Gorgonzola. Although there seems to be no reason why such cheeses should not be made in the United States, they do not, in the opinion of experts, offer at the present time the most promising field for American cheese makers. For the present at least it would probably be better for them to encourage the demand for standard types, such as Cheddar, Swiss, Limburger, pineapple, etc. The field for Cheddar is particularly promising because of the fact that the flavor of this cheese, while always distinctive, can, nevertheless, be made to vary widely. This variation enables it to act as a substitute for a number of other varieties. In short, the experts in the Department of Agriculture are confident that with care and foresight at the present time the American producers will do much to place American cheeses on a permanent equality with the European varieties and sweep away a prejudice that has held back the industry in the past.

As long as the general public believes that the imported product is necessarily the best, the tendency on the part of the American manufacturer is inevitably to turn out goods that will sell because of their low price, not because of their high quality.

The best way to remedy this condition of affairs and to make friends for domestic cheeses of foreign type is for American makers to label their products frankly as American goods. This will give the consumers an opportunity to compare our best home-made products with the imported article. The result will be the removal of a long standing prejudice and an added incentive for manufacturers to improve the quality of their products. It is thought that this can be done and the price still kept below that necessarily demanded for imported cheese. But any temporary advantage gained by the present situation cannot be maintained unless American cheese makers work for quality of their products. Eventually, they will again be obliged to compete with Europeans who for generations have looked upon cheese making as a fine art.

AMERICAN SALT ENTERPRISE IN THE BAHAMAS.

Consul W. F. Doty, Nassau, writes that a Chicago corporation contemplates leasing a tract of at least 1,000 acres on Inagua, one of the Bahama Islands, widening and deepening a canal to admit barges of 300 or more tons and establishing a big salt-making plant. Autotrucks would be loaded at the salt pans and convey the salt to lighters. The trucks would carry eight tons of salt. At present private firms pay 2 cents United States currency for hauling their salt to warehouses, while other expenses bring the total cost up to 5 cents for placing the salt on steamers. The price paid for the salt is only 6 cents, which is too close a margin. The American corporation could reduce the expenses greatly. A steamship line has offered to carry the salt to New York at a nominal rate. Thence it would be conveyed in meat cars returning to Chicago usually empty. A dozen industries allied with this corporation would require salt.

UNIFORM COLD STORAGE LAW.

THE annual session of the Conference of Commissioners of Uniform State Laws, at Washington, in October, adopted the following act to regulate the cold storage of certain articles of food, as one to be recommended by various commissioners for enactment in their respective states.

The law is framed, as indicated by its title, as purposely limited in its scope, to the regulation of the cold storage of articles of food when in cold storage warehouses. The act nowhere departs from this scheme excepting in section 9. It is stated as probable that the conference may, at a subsequent time, undertake to draft a proposed uniform law regulating the public health, embodying laws regulating the handling and sales of articles of food after their release from cold storage and transfer to dealers for distribution to consumers. The act reads:

AN ACT TO REGULATE COLD STORAGE OF CERTAIN ARTICLES OF FOOD.¹

Be it enacted, etc.

Section 1. For the purpose of this Act, "cold storage" shall mean the storage or keeping of articles of food at or below a temperature above zero of 45 degrees Fahrenheit in a cold storage warehouse: "Cold Storage Warehouse" shall mean any place artificially cooled to or below a temperature above zero of 45 degrees Fahrenheit, in which articles of food are placed and held for thirty days or more: "Article of food" shall mean both meat and fresh meat products, and all articles of fish, game, poultry, eggs and butter.

Sec. 2. No person, firm or corporation shall maintain or operate a cold storage warehouse without a license so to do issued by the State Food Commissioner.² Any person, firm or corporation desiring such a license shall make written application to the State Food Commissioner for that purpose, stating the location of the warehouse. The State Food Commissioner hereupon shall cause an examination to be made of said warehouse and, if it be found by him to be in a proper sanitary condition and otherwise properly equipped for its intended use, he shall issue a license authorizing the applicant to operate the same as a cold storage warehouse during one year. The license shall be issued upon payment by the applicant of a license fee of ———— to the treasurer of the state.

Sec. 3. In case any cold storage warehouse, or any part thereof, shall at any time be deemed by the State Food Commissioner to be in an unsanitary condition, or not properly equipped for its intended use, he shall notify the licensee of such condition and upon the failure of the licensee to put such cold storage warehouse in a sanitary condition or to properly equip the same for its intended use, within a time to be designated by the State Food Commissioner, he shall revoke such license.

Sec. 4. Every such licensee shall keep accurate records of the articles of food received in and of the articles of food withdrawn from his cold storage warehouse, and the State Food Commissioner shall have free access to such records at any time. Every such licensee shall submit a monthly report to the State Food Commissioner, setting forth in itemized particulars the quantities and kinds of articles of food in his cold storage warehouse. Such monthly reports shall be filed on or before the fifth day of each month, and the reports so rendered shall show the conditions existing on the last day of the preceding month reported and a summary of such reports shall be prepared by the State Food Commissioner and shall be open to public inspection on or before the tenth day of each month.

Sec. 5. The State Food Commissioner shall inspect and supervise all cold storage warehouses and make such inspection of articles of food therein as he may deem necessary to secure the proper enforcement of this Act, and he shall have access to all cold storage warehouses at all reasonable times. The State Food Commissioner may appoint such persons as he deems qualified to make any inspection under this Act.

Sec. 6. No article of food intended for human consumption shall be placed, received or kept in any cold storage warehouse if diseased, tainted, otherwise unfit for human consumption, or in such condition that it will not keep wholesome for human consumption. No article of food for use other than for human consumption, shall be placed, received

or kept in any cold storage warehouse unless previously marked, in accordance with forms to be prescribed by the State Food Commissioner, in such a way as to indicate plainly the fact that such article of food is not to be sold or used for human food.

Sec. 7. No person, firm or corporation shall place, receive or keep in any cold storage warehouse in this state articles of food unless the same shall be plainly marked, stamped or tagged, either upon the container in which they are packed, or upon the article of food itself, with the date when placed therein; and no person, firm or corporation shall remove, or allow to be removed, such article of food from any cold storage warehouse unless the same shall be plainly marked, stamped or tagged, either on the container in which it is enclosed or upon the article of food itself, with the date of such removal, and such marks, stamps and tags shall be prima facie evidence of such receipt and removal and of the dates thereof. All articles of food in any cold storage warehouse at the time this Act goes into effect shall, before being removed therefrom, be plainly marked, stamped or tagged with the date when this Act goes into effect and the date of removal therefrom.

Sec. 8. No person, firm or corporation shall hereafter keep or permit to remain in any cold storage warehouse any article of food which has been held in cold storage either within or without the state, for a longer aggregate period than twelve months, except with the consent of the State Food Commissioner as hereinafter provided. The State Food Commissioner shall, upon application during the twelfth month, extend the period of storage beyond twelve months for any particular article of food, provided the same is found upon examination to be in proper condition for further cold storage. The length of time for which such further storage is allowed shall be specified in the order granting the permission. A report on each case in which such extension of storage may be permitted, including information relating to the reason for the action of the State Food Commissioner, the kinds and amounts of the articles of food for which the storage period was extended, and the length of time for which this continuance was granted, shall be filed, open to public inspection, in the office of the State Food Commissioner, and shall be included in his annual report. Such extension shall be not more than sixty days; a second extension of not more than sixty days may be granted upon a re-examination, but the entire extended period shall be not more than one hundred and twenty days in all.

Sec. 9. It shall be unlawful to sell, or to offer for sale, any article of food which has been held for a period of thirty days or over in cold storage, without notifying persons purchasing, or intending to purchase, the same, that it has been so held, by the display of a placard plainly and conspicuously marked, "Cold Storage Goods" on the bulk mass or articles of food; and it shall be unlawful to represent or advertise as fresh any article of food which has been held in cold storage for a period of thirty days or over.

Sec. 10. It shall be unlawful to return to any cold storage warehouse any article of food which has been once released from storage for the purpose of placing it on the market for sale. It shall be unlawful to transfer any article of food from one cold storage warehouse to another if such transfer is made for the purpose of avoiding any provision of this Act, and such transfer shall be unlawful unless all prior stampings, markings and taggings upon such article shall remain thereon.

Sec. 11. The State Food Commissioner may make all necessary rules and regulations to carry this Act into effect. Such rules and regulations shall be filed in the Commissioner's office, and shall not take effect until thirty days after such filing.

Sec. 12. Any person, firm or corporation violating any provision of this Act shall be guilty of a misdemeanor and shall upon conviction be punished for the first offense by a fine not exceeding ———— (\$—) and for the second or any subsequent offense by a fine not exceeding ———— (\$—) or by imprisonment of not more than six months, or by both such fine and imprisonment, in the discretion of the court.

Sec. 13. This Act shall be so interpreted and construed as to effect its general purpose to make uniform the laws of those states which enact it.

Sec. 14. This act may be cited as the Uniform Cold Storage Act.

Sec. 15. All Acts or parts of Acts conflicting with this Act are hereby repealed.

¹The title should be made to conform to the constitutional provisions of the state.

²Wherever in this act the words "State Food Commissioner" are used, the name of any other officer or board may be substituted.

United States Department of Agriculture.

BUREAU OF CHEMISTRY.

C. L. ALSBERG, CHIEF.

SERVICE AND REGULATORY ANNOUNCEMENTS.

SUGGESTIONS FOR LABELING MEDICINES UNDER THE SHERLEY AMENDMENT TO THE FOOD AND DRUGS ACT, JUNE 30, 1906.

The bureau has received many inquiries relative to the proper labeling of medicinal preparations in compliance with the requirements of the Food and Drugs Act, as amended by the act of August 23, 1912, commonly known as the Sherley amendment.

The following suggestions are offered to manufacturers or proprietors of such preparations to serve as a guide in the preparation of labels.

1. *Claims of therapeutic effects.*—A preparation cannot be properly designated as a specific, cure, remedy, or recommended as infallible, sure, certain, reliable or invaluable, or bear other promises of benefit unless the product can as a matter of fact be depended upon to produce the results claimed for it. Before making any such claim the responsibility should carefully consider whether the proposed representations are strictly in harmony with the facts; in other words, whether the medicine in the light of its composition is actually capable of fulfilling the promises made for it. For instance, if the broad representation that the product is a remedy for certain diseases is made, as, for example, by the use of the word "remedy" in the name of the preparation, the article should actually be a remedy for the affections named upon the label under all conditions, irrespective of kind and cause.

2. *Indirect statements.*—Not only are direct statements and representations of a misleading character objectionable, but any suggestion, hint, or insinuation, direct or indirect, or design or device that may tend to convey a misleading impression should be avoided. This applies, for example, to such statements as "has been widely recommended for," followed by unwarranted therapeutic claims.

3. *Indefinite and sweeping terms.*—Representations that are unwarranted on account of indefiniteness of a general sweeping character should be avoided. For example, the statement that a preparation is "for kidney troubles" conveys the impression that the product is useful in the treatment of kidney affections generally. Such a representation is misleading and deceptive unless the medicine in question is actually useful in all of these affections. For this reason it is usually best to avoid terms covering a number of ailments, such as "skin diseases, kidney, liver, and bladder affections," etc. Rheumatism, dyspepsia, eczema, and the names of many other affections are more or less comprehensive, and their use under some circumstances would be objectionable. For example, a medicine should not be recommended for rheumatism unless it is capable of fulfilling the claims and representations made for it in all kinds of rheumatism. To represent that a medicine is useful for rheumatism, when as a matter of fact it is useful in only one form of rheumatism, would be misleading; such statements as "for some diseases of the kidney and liver," "for many forms of rheumatism," are objectionable, on account of indefiniteness.

Names like "heart remedy," "kidney pills," "blood purifier," "nerve tonic," "bone liniment," "lung balm," and other terms involving the names of parts of the body are objectionable for similar reasons.

4. *Testimonials.*—Testimonials, aside from the personal aspect given them by their letter form, hold out a general representation to the public for which the party doing the labeling is held to be responsible. The fact that a testimonial is genuine and honestly represents the opinion of the person writing it does not justify its use if it creates a misleading impression with regard to the results which the medicine will produce.

No statement relative to the therapeutic effects of medicinal products should be made in the form of a "testimonial" which would be regarded as unwarranted if made as a direct statement of the manufacturer.

5. *Refund guarantee.*—Statements on the labels of drugs guaranteeing them to cure certain diseases or money refunded may be so worded as to be false and fraudulent and to constitute misbranding. Misrepresentations of this kind are not justified by the fact that the purchase price of the article is actually refunded as promised.

NOTICE TO MANUFACTURERS OF TOMATO PULP.

The tomato packing season is now opening, and to insure a clean product the attention of packers is called to the statements and suggestions relative to the examination of tomato ketchup as given in Circular 68 of the Bureau of Chemistry.

While it is believed to be possible for manufacturers of tomato products to keep within the limits given—25 million bacteria per cubic centimeter, 25 yeasts and spores per one-sixtieth cubic millimeter, and molds in less than 25 per cent of the fields—and that these are the desirable maximum limits, they are in no case to be regarded as the final standard by which products of this nature are to be judged. Such products should be judged by no single factor but by all the factors involved, including the degree of concentration.

While the microscopic examination is of great value in determining the quality of the finished product, it is believed that the expense of microscopic examination can better be expended on factory inspection. It is recommended that manufacturers place greater stress upon the inspection of their raw material, and on the regulation of factory methods in order to assure themselves that no unfit material is used, that the products are handled in a cleanly and sanitary manner, and that proper sterilization results. The packer who knows that he is using only sound material and sanitary methods usually has a much better knowledge of his products than that secured by a superficial examination of the finished material.

When microscopic examinations are made they should be made by those specially trained in bacteriology, microscopy, and examination of plant structures, in order to secure trustworthy results. The chemist, even though he be an experienced analyst, usually has only a superficial knowledge of bacteriology and microscopy. Many manufacturers are employing inexperienced persons to make examinations by the methods given in Circular No. 68, and are depending upon the results obtained to determine whether or not their products comply with the requirements of the Food and Drugs Act. It has been brought to the attention of the bureau that manufacturers and buyers frequently reject and destroy wholesome food products, with the consequent loss, as the result of such untrustworthy examinations.

It is the intention of the Bureau of Chemistry to enforce more rigidly the requirements of the law relative to the use of unfit material in food products, and the suggestions made above are offered with the object of directing attention to the points where they will do the most good. It is much preferred to improve the character of food products by assisting the manufacturer than by summoning him into court.

NOTICE TO OYSTER GROWERS AND DEALERS.

The attention of the bureau has recently been called to the fact that many oyster dealers are resorting to the practice of soaking shucked oysters prior to shipping them in interstate commerce. It is desired at this time to call attention to Food Inspection Decision No. 110, paragraph 6, which states that "it is unlawful to ship or to sell in interstate commerce shucked oysters to which water has been added." This decision covers the abnormal washing and chilling of oysters, which practice has the effect of soaking. The bureau will take active steps to enforce this decision.

It is desired to call the attention of the growers and dealers to this condition and regulation, and request their co-operation in suppressing this practice.

STATEMENT OF WEIGHT IN 8-POINT (BREVIER) CAPS NOT REGARDED AS CONSPICUOUS IN THE CASE OF CANNED GOODS.

Paragraph (c) of the regulations, Food Inspection Decision No. 154, provides that the statement of the quantity of contents shall be plain and conspicuous, shall not be part of or obscured by any legend or design, and shall be so placed and in such characters as to be readily seen and clearly legible when the size of the package and the circumstances under which it is ordinarily examined by purchasers or consumers are taken into consideration.

Ordinarily, in the opinion of the bureau, a statement upon canned goods in 8-point type would not be conspicuous.

STATEMENT OF CONTENTS ON NECK LABELS.

The propriety of placing the statement of contents upon the neck label depends largely upon the facts and conditions surrounding its use. The law requires that the marking shall be plain and conspicuous, and the regulations provide that it shall be so placed and in such characters as to be readily seen and clearly legible when the size of the package and the circumstances under which it is ordinarily examined by purchasers or consumers are taken into consideration.

THE MARKING OF MILK SHIPPED IN EIGHT-GALLON CANS AND SOLD AT DESTINATION BY WEIGHT.

Both the Food and Drugs Act and regulation 29, as amended (F. I. D. 154), apply to articles of food, including milk, which are shipped from one State into another, and paragraph (a) of the regulation requires generally that the quantity of the contents in all cases of food, if in package form, must be plainly and conspicuously marked on the outside of the covering or container usually delivered to consumers. Whether milk shipped to market in eight-gallon cans, to be sold there by weight, after dumping into a weighing tank, is in package form, within the meaning of the act and of the regulation, is a question which can be finally determined only by the courts. It is necessary, however, for the department in deciding whether prosecution shall be brought for violation of the act, or of the regulation, to determine the question for administrative purposes.

Whether milk shipped in eight-gallon cans under the conditions set forth is in package form is not entirely free from doubt. Pending further consideration, however, and until the department shall give public notice to the contrary, the department will not regard milk shipped in eight-gallon cans to market, there to be dumped into weighing tanks and sold by weight, as being in package form, and therefore subject to the requirement of the Food and Drugs Act and of the regulation that the quantity of the contents of food in package form be declared on the outside of the container.

STATEMENT OF CONTENTS ON PACKAGES OF FISH IN BRINE.

It is the opinion of the department that packages containing fish in brine should bear a plain and conspicuous statement showing the net weight of the fish exclusive of the brine.

STATEMENT OF CONTENTS ON PACKAGES OF OLIVES IN BRINE.

In the opinion of the department packages of olives in brine should be marked with a statement of the net weight of the olives exclusive of the brine. This should be stated in terms of the largest unit contained in the package.

STATEMENT OF CONTENTS ON KEGS AND BARRELS OF BEER.

Inquiry has been made as to whether it is necessary to place a label bearing a statement of the quantity of the contents upon kegs and barrels containing beer, ale, or porter, in view of the fact that the revenue stamp upon such kegs and barrels states the quantity.

The Food and Drugs Act as amended requires marking with a plain and conspicuous statement of the quantity of the contents, and the regulations (F. I. D. 154) require all statements of the quantity of liquids to be in terms of the United States gallon and its usual subdivisions.

In the opinion of the bureau the statement of quantity placed upon the revenue stamp is not a marking sufficient to comply with these requirements.

STATEMENTS OF CONTENTS ON TUBS OF BUTTER AND BOXES OF CHEESE.

Butter in tubs and cheese in boxes are regarded as food in package form and should be marked in accordance with the regulations, F. I. D. 154. The bureau has held, however (S. R. A., Chem. 5, letter 34, p. 311), that when containers are used for convenience in shipping only and the contents consist of two or more packages marked in accordance with the regulations no statement of contents need be made on the outside of such shipping containers.

TOMATOES PACKED IN BRINE.

It is the opinion of the bureau that canned tomatoes, when labeled as such, must comply strictly with the requirements of Food Inspection Decision 144, and that the addition of water, brine, or juice in excess of that naturally present in the tomatoes canned would constitute an adulteration.

There would appear to be no objection, however, to packing whole tomatoes in brine if sold under a label which clearly distinguishes them from canned tomatoes. In declaring the quantity of the contents of the food in such a package the statement should be based upon the weight of the tomatoes, exclusive of the brine.

THE USE OF COCOANUT OIL IN THE MANUFACTURE OF COMPRESSED MINTS.

This bureau makes no objection to the use of cocoanut oil in the manufacture of compressed mints, for the purpose of lubrication and in the proportion of one-half of one per cent.

MISLEADING LABELS ON PACKAGES OF MIXED CANDIES.

Packages of mixed candies labeled "all fruit flavors," "assorted fruit flavors," "fruit flavors," etc., are considered misbranded if the candies contained therein are prepared by the use of both true and artificial fruit flavors, for the reason that such labeling would give the impression that only true fruit flavors have been used.

IMPORTATIONS OF BUTTER UNDER CERTIFICATES FROM FOREIGN GOVERNMENTS THAT THEY ARE FREE FROM PRESERVATIVES.

Inquiry has been made as to whether this department accepts butter coming from Queensland, Australia, on the certificate of the Queensland government that it does not contain preservative. The department will receive such certificates, but the right has been reserved to make examination from time to time, if desired, to determine if the butter is of satisfactory quality and free from preservative.

THE PROTEIN FACTOR. AMENDMENT TO LETTER 58 IN S. R. A., CHEM. 6, P. 420.

In the opinion of this bureau the factor 5.70 is more nearly the correct factor for protein in all straight wheat products, including bran and shorts, than is the factor 6.25. In view of the established custom, both in trade practice of buying and selling and in inspection work, of using the factor 6.25, however, a concession will be made in the case of feeds and products commonly used as ingredients thereof, allowing the use of the factor 6.25. In the event it is decided to require the use of the factor 5.70 in wheat products other than flour and gluten, at least six months' advance notice will be given the trade.

COTTON SEED MEAL.

The following statement has been made in response to questions regarding the status of cotton seed meal under the Food and Drugs Act:

1. Cotton seed meal is classed as a food and is subject to the Food and Drugs Act, as amended, and to the regulations issued thereunder.

2. When cotton seed meal is sold as a fertilizer for fertilizing purposes, and under the fertilizer laws of various States, and is so labeled or tagged, it will be considered as a fertilizer and not subject to the requirements of the Food and Drugs Act or regulations relating thereto.

3. If cotton seed meal classed and labeled as damaged or off meal is sold as a fertilizer, such meal will be classed as a fertilizer and not as a food, and therefore is not subject to the requirements of Food Inspection Decision No. 154.

4. No definite statement can be made as to whether a declaration of weight need be made on shipments of cotton seed meal or cake sold in bulk. The details of selling, packing, and shipping would have to be considered in each case in order to reach a definite conclusion.

5. Shipments of cotton seed meal or cake in package form in the channels of commerce, described in the Food and Drugs Act, must be marked in accordance with the provisions of the amendment of March 3, 1913, and the regulations issued thereunder (F. I. D. 154), irrespective of any marking or branding which may be done subsequent to delivery to consignee.

6. The same regulations apply to cotton seed cake and cracked cake as to cotton seed meal.

7. Shipments of cotton seed cake and meal on domestic bills of lading would be subject to the requirements of the Food and Drugs Act, while those intended for export to any foreign country and actually exported would not be deemed misbranded or adulterated within the provisions of the act if prepared or packed according to the specifications or directions of the foreign purchaser, when no substance is used in the preparation of packing thereof in conflict with the laws of the foreign country to which they are intended to be shipped.

STATEMENT OF QUANTITY OF CONTENTS ON BAGS OF GREEN COFFEE.

Inquiry has been made as to whether green coffee in bags imported from Brazil should be marked with a statement of the quantity of the contents in accordance with the provisions of the act of March 3, 1913, commonly known as the Net Weight Amendment to the Federal Food and Drugs Act.

It is stated that green coffee is commonly received from Brazil in cargo lots packed in bags weighing approximately 132 pounds each, and that such bags of green coffee seldom, if ever, reach the ultimate consumer, there being practically no demand among such consumers for unroasted coffee.

The question whether green coffee in bags constitutes food in package form within the meaning of the Net Weight Amendment is, in the opinion of the department, not entirely free from doubt. Under the circumstances the department will for the present interpose no objection to the importation of green coffee in bags solely upon the ground that such bags are not plainly and conspicuously marked with a statement of the quantity of the contents.

Should it finally be decided by the department that bags of green coffee constitute food in package form within the

meaning of the law, public notice of such a decision will be given and importers afforded an opportunity of making the necessary arrangements, in the countries from which coffees are imported, to have the necessary statements placed upon the bags.

STATEMENT OF QUANTITY OF CONTENTS ON PACKAGES OF FRESH OYSTERS.

When fresh shucked oysters are shipped in interstate commerce in returnable packages which are refrigerated, these packages should be plainly and conspicuously marked with a statement of the net contents, by measure, in terms of the largest unit of measure and fractions thereof, in the package, or in terms of weight, if preferred, if there is a trade custom to this effect.

There appears to be no objection to labeling with a statement of quantity, under these conditions, by means of a tag which is firmly affixed to the package, providing it is made conspicuous.

QUANTITY OF THE CONTENTS OF CANNED OYSTERS, CANNED CLAMS, AND CANNED SHRIMP TO BE DECLARED ON CUT-OUT WEIGHTS OF THE DRAINED MEAT.

In the opinion of this bureau, the quantity of the contents of a package of canned (cove) oysters or canned clams, as usually packed and processed, should be declared on the basis of the cut-out weight of the drained meat. This also applies to canned shrimp.

In this connection attention is called to letters Nos. 2 and 3, in Bureau of Chemistry Service and Regulatory Announcements for January, 1914, which state the weights of drained meat which, in the opinion of the bureau, satisfactorily fulfill the requirements of Food Inspection Decision 144 in the case of canned oysters and clams.

STATEMENT OF QUANTITY OF CONTENTS ON PACKAGES OF FLAVORING EXTRACTS.

If a bottle of flavoring extract is placed in a permanent carton and is delivered to the consumer in the carton, the regulation (F. I. D. 154) would seem to be satisfied if the statement of quantity appears only on the carton. The law itself requires merely that the statement shall appear on the outside of the package. If the carton is a part of the permanent package, a statement placed upon it would seem to be on the outside of the package within the meaning of the Net Weight Amendment.

STATEMENT OF QUANTITY OF CONTENTS ON PACKAGES OF CATSUP.

In the opinion of the bureau, catsup may be sold either by weight or by measure, in conformity with paragraph (f) of Food Inspection Decision 154.

ALUM IN PICKLES.

The Referee Board of Consulting Scientific Experts has investigated the influence of aluminum compounds on the nutrition and health of man. The results of this investigation have been published in Department Bulletin 103.

The board came to the conclusion that the amount of alum which remains in pickles and is therefore consumed is so small as to be negligible. From the information at hand it also appears that alum is almost universally used in the preparation of pickles and may, therefore, be considered a common ingredient of such products.

In view of these facts, this bureau offers no objection to the use of a small amount of alum in the preservation of pickles.

LABELING OF TAMARIND SIRUP.

The examination of many samples of so-called tamarind sirup on the market shows that they contain little or no tamarind, but consist mainly of a sugar sirup colored with caramel and flavored with citric or tartaric acid. It is considered that a tamarind sirup should contain sufficient tamarind to give it the characteristic tamarind flavor. A sirup containing no tamarind, or only an immaterial amount, flavored with citric or tartaric acid and colored with caramel to simulate sirup or tamarinds, should be labeled as imitation tamarind sirup.

SUBSTANCES USED FOR CORRECTING DEFICIENCY IN SACCHARINE MATTER IN MUSTS AND WINES (F. I. D. 156.)

Food Inspection Decision No. 156 (S. R. A., Chem. 6, p. 415) reads, in part, as follows:

To correct the natural defects above mentioned the following additions to musts or wines are permitted:

In the case of deficiency in saccharine matter, condensed grape must, or a pure dry sugar.

It is the opinion of this department that such a sugar as has been sold under the trade designation of "anhydrous sugar," or any sugar of similar composition and purity, may be employed for the purpose stated in the food inspection decision.

CONSTRUES TEXAS FOOD LAW.

The Attorney General of Texas has, in response to a request by Food and Drug Commissioner C. O. Yates, given a construction of section 23 of the pure food and drug law, defining who are manufacturers of food in Texas, what is meant by the term "doing business in this State," and what persons, firms or corporations are subject to the payment of the registration fee of \$1.

Under the ruling those persons who are required to pay the registration fee are all manufacturers of foods and drugs doing business in the State of Texas, and such persons as shall bring into and offer for sale within the State any article of food or drugs.

Since all manufacturers of food and drugs doing business in that State are required to register and pay the fee, definite explanation of the term "doing business in this State" is made.

"It is plain," says the opinion, written by Assistant Attorney General Keeling, "that if the food and drugs are manufactured in this State and placed on sale in this State, then the manufacturer would be doing business in this State and would be required to pay the fees prescribed in the act, but a more difficult question arises where the goods are manufactured outside the State. If the manufacturer outside of the State ships foods or drugs to the customer direct then the manufacturer would not be doing business in this State and would not be subject to the tax of \$1, even though the customer should be a merchant, but under this condition the manufacturer would be engaged in interstate commerce, and this would be true, although the business was secured by its agent or drummer taking orders from dealers or merchants.

"The law requires that all persons who shall bring or ship, or cause to be brought or shipped into the State and offer for sale in this State articles of food or drugs shall register and pay the fee. It follows from this that the Texas dealer who buys these goods from the manufacturer or jobber outside of the State and has them shipped to him, comes under the operation of the law and would be required to pay the fee provided in the act. It would not lessen his liability, even though he ordered through an agent or drummer, but if the merchant or dealer orders from the Texas house of a manufacturer in another State he would not be required to pay the fee."

BOTTLING PASTEURIZED MILK WHILE HOT.

Investigators in the U. S. Department of Agriculture have found that the process of bottling pasteurized milk while still hot has several advantages which make it seem probable that this method would prove both economical and efficacious when practiced on a commercial scale. In an article printed by permission of the Secretary of Agriculture in the Journal of Infectious Diseases, the authors declare that this method results in bacterial reductions as great as, or even greater than, by pasteurization in bottles.

The principal advantage of the latter method for the ordinary systems in commercial use is the impossibility of the milk becoming contaminated again while being bottled. There is also some saving of milk, because there is no loss from evaporation. On the other hand, when milk is pasteurized in bottles, it is customary to cool the bottles by placing them in cold water. This necessitates the use of absolutely watertight caps, otherwise some of the cold water is likely to find its way into the milk bottles, and even a very slight leak may result in contamination. Waterproof caps are not only expensive, but care is essential to see that they actually are waterproof, and moreover, bottles with chipped or otherwise damaged tops cannot be used, no matter how nearly perfect the cap may be.

Laboratory experiments conducted by the investigators indicate that milk may be pasteurized, bottled hot, capped with ordinary cardboard caps, and cooled by a blast of cold air economically and with very satisfactory bacterial reductions. The air-cooling process requires a somewhat longer time than cooling by water, but in the laboratory it was found that thoroughly pasteurized milk, bottled immediately, could be cooled slowly without increasing the bacterial content. Whether or not the experience of the laboratory will be found true in commercial practice, remains to be seen. The Department of Agriculture, it is announced, will conduct experiments with a view to determining this important point.

Before the milk is poured into them, the bottles should be steamed for two minutes, the authors are careful to point out. This removes all danger of infecting the milk from the bottles, and is another advantage that this new method possesses.

Recent Laws and Rulings

COLORED TEA ADULTERATED.

(Federal.) Act of March 2, 1897 (U. S. Comp. stat. 1901, p. 3194), provides for the inspection of tea importations, and requires that the purity and quality shall be tested according to the customs of the tea trade, including the testing of an infusion in boiling water, and, if necessary, chemical analysis. In *Macy v. Browne et al.*, a United States case in the New York district, the above statute was brought into question. George H. Macy, the plaintiff, presented a large importation of tea for entry at the port of San Francisco. The collector of that port rejected the same on the ground of its inferior quality and its inability to stand the tests as provided for by the government in pursuance of statute. The plaintiff, Macy, protested at the decision of the collector and caused the matter to be referred to a board of three general appraisers, commonly called the "Tea Board." The application was then made in behalf of the "Tea Board" to the district court for instructions in the matter of entering a decision. The tea in question stood well under each test except that it contained more than the prescribed amount of coloring matter allowed. This coloring matter was, however, harmless. The court held that a failure to comply with the standard of color should in itself be considered an inferiority in purity or quality and justifies exclusion. However, the question is one which should lie entirely within the discretion of the tea board and no question is presented in which courts should be called upon for instructions or answer. If the board so saw fit, it might admit tea which contained more than the prescribed amount of coloring matter, provided such coloring was harmless. In the present case the application to the federal court was dismissed and the holding of the "Tea Board" considered as final.

Macy v. Browne. 15 Fed. 456.

DECAYED EGGS CONDEMNED.

(Federal.) The Federal Food and Drug Act of 1906 (34 Stat. 786) prohibits the transportation from one state to another of any adulterated article of food. The United States Circuit Court of Appeals has construed this law to prohibit the transportation of decayed frozen eggs, taken from the shell and mixed together. The court arrived at this conclusion in the case of *United States v. Thirteen Crates of Frozen Eggs*. There the frozen eggs had been taken from the shell, mixed together and transported in interstate commerce. The court was clearly of the opinion that the eggs were within the prohibition of the act of congress prohibiting the transportation from one state to another of any adulterated article of food. The fact that no wrongful intent was displayed on the part of the parties owning the food does not relieve them from the responsibility for such evasion of law. The law could not be enforced if the government was compelled, in the case of articles clearly prohibited from interstate commerce, to establish the wrongful intent of the parties. It is enough that such articles are prohibited. All that is necessary for the government to show is that an adulterated article of food has been transported in interstate commerce.

United States v. Thirteen Crates of Frozen Eggs. 215 Fed. 584.

ICE CREAM STANDARD UPHELD.

(Pennsylvania.) The case of *Commonwealth vs. A. B. Crowl* was a conviction for selling ice cream deficient in butter fat in violation of the Pennsylvania Ice Cream Act of March 24, 1909. The defendant, Crowl, questioned the constitutionality of the law, claiming the same as not within the police power of the state in so far as it fixes the standard of butter fat in ice cream at 8 per cent. The further contention of defendant was that the suit had been improperly brought in view of the fact that it was not originated by the dairy and food commissioner. The case was tried in the superior court, where a conviction was had against Crowl and an appeal was taken to the supreme court of Pennsylvania. There the judgment of the superior court was affirmed, the court holding that the law was constitutional and within the police power of the state. The fact that the suit was commenced by the prosecuting attorney and not by the dairy and food commissioner did not in any way alter the situation. A prosecution for selling ice cream deficient in butter fat, according to the standard fixed by law, need not be commenced by the dairy and food commissioner, but may be commenced on the information of any private citizen.

Commonwealth v. Crowl. 91 Atl. Rep. 922.

ALBUMEN ALLOWED IN BAKING POWDER.

(Federal.) Suit by the Crescent Manufacturing Company against J. D. Mickle, the State Dairy and Food Commissioner of Oregon, to enjoin the latter from interfering with the sale in Oregon of Crescent baking powder, which is a product manufactured by the complainant in Seattle, Wash., and sold in many states. The facts of the case are as follows: The Crescent Manufacturing Company is engaged in the manufacture and sale of Crescent baking powder, which is a mixture or compound consisting of five ingredients, namely: Bicarbonate of soda, calcium acid phosphate, sodium aluminum sulphate, egg albumen and corn starch. The egg albumen used in the powder is clean, wholesome and nutritious, and enters into and becomes a part of the product to the same extent as all other ingredients. Complainant has established a large trade in the state of Oregon and has in the past had no difficulty in transporting its product from Washington into Oregon. The defendant Dairy and Food Commissioner of Oregon has threatened to make a ruling which will bar the entry of complainant's baking powder into that state on the ground that the same is adulterated and contained in packages which are not labeled in conformity to the Oregon Food Laws. The complainant avers that Crescent baking powder is not adulterated nor misbranded within the meaning of the food and drug law, and that it is labeled in full compliance with the labeling requirements of all such laws; that such baking powder does not contain any added substance of a poisonous nature, but that it is an original product put up in proper packages and labeled in strict conformity to law. It seems that the specific objection made by the dairy and food commissioner was that the product contained egg albumen, which he claimed constituted an adulteration. The evidence and analysis of the product showed that the quantity of egg albumen was infinitesimal and absolutely unwholesome. Its presence did not make the compound appear better or of greater value than it really was.

On this statement of the facts, the United States District Court held that the product was not adulterated, saying that egg albumen was clean, nutritious and wholesome, and its presence in baking powder did not render the product less wholesome, nor detract in any degree, even to the slightest, from its quality as an ingredient of food. Complainant's injunction allowed.

Crescent Manufacturing Co. v. Mickle. 216 Fed. 249.

TRADE MARK CASE.

(California.) Where plaintiff used the name of the town in which it manufactured butter to designate its product, and defendants fraudulently marked their product with the same name, a judgment, declaring that, as against defendants, plaintiff had the exclusive right to use the town name as it appeared on its butter wrapper, and enjoining defendants from using the town name so as to deceive the buying public into the belief that their product was plaintiff's, is not an adjudication that plaintiff had the exclusive right to use the name of the town in connection with its product, but only adjudges that plaintiff has a superior right to the use of the name as it appears on its wrappers.

Modesto Creamery v. Stanislaus Creamery Co. 142 Pac. Rep. 845.

TRADE MARK CASE.

(Federal.) The name "Coca-Cola" as applied to flavoring syrup for carbonated drinks, containing about 2 per cent of the compound made from coca leaves and cocoanuts, is not so substantially and really deceptive as to invalidate it as a trade mark under the federal law of 1906. *Nashville Syrup Co. vs. Coca-Cola Company*, a federal case in the Northern District of Tennessee. The case is of particular interest, owing to the fact that Judge Sanford in his opinion traces the Coca-Cola industry from its infancy to the present time. The judge said: "Coca is a South American shrub, from the leaves of which cocaine, among other substances, is obtained; the cola tree grows in Africa, and from its nuts caffeine may be extracted. The use of these leaves and these nuts by the natives in their respective countries, and for the supposed stimulating qualities, had long been known in this country, and before 1887 extracts respectively from coca leaves and from cola nuts had found a place in the pharmacopoeia. There was little popular knowledge concerning them. The extracts were used only by druggists in compounding medi-

cine. In 1887 Pemberton, an Atlanta druggist, registered in the Patent Office a label for what he called "Coco Cola Syrup and Extract." The plaintiff below, the Coca-Cola Company, was organized as a corporation in 1892 and acquired Pemberton's formula and label. Since that time it has continuously manufactured and sold a syrup under the name "Coca-Colo," and used, as a basis for carbonated drinks, the syrup, under this name, has had a large sale in all parts of the country. In 1893 the Coca-Cola Company (herein called plaintiff) registered the name "Cola-Cola" as a trade-mark, and again in October of 1905, and pursuant to the act of February 20, 1905, the name was registered by plaintiff as a trade-mark under the 10-year proviso of that act. Plaintiff enjoyed the exclusive use of the name from 1892 until 1910. In that year, J. D. Fletcher, now the active manager of the Nashville Syrup Company (herein called defendant), became interested with others in the manufacture of a somewhat similar syrup being sold under the name "Murfe's Cola." Later in that year they changed the name of their product to "Murfe's Coca Kola," and shortly afterwards Mr. Fletcher became sole owner of the business and the product was named "Fletcher's Coca Cola," and has been sold by him and his successor, the Nashville Syrup Company, under that name. The bill of complaint herein claimed for plaintiff a common-law trade-mark in the name, and also claimed trade-mark rights by virtue of the registration under the act of 1905. It also alleged that the words of the name, if they ever indicated anything other than plaintiff's product, had acquired a secondary meaning limited to that article, and that defendant was engaged in unfair competition."

The main question involved in the suit is the right of the Nashville Syrup Company to make use of the words "Coca Cola" which had been used exclusively by plaintiff Coca Cola Company. The defendants allege that they are entitled to use the same as well as the plaintiffs for the reason that the name as used by plaintiffs is deceptive, in that the product, while named "Coca Cola," does contain but 2 per cent of coca and cola. The court held that the use of only 2 per cent of coca and cola was not a deception such as to bar any rights to a common law trade-name. Where a name has been exclusively used to designate the product of a particular manufacturer for so long a time as to have become identified with it in the minds of purchasers and to be a valid trade-mark it cannot be used by another on a similar product merely because ingredients are used in such other product which make the name in a sense descriptive of it.

Nashville Syrup Co. v. Coca Cola Co., 215 Fed. 259.

PORTO RICO NET WEIGHT LAW.

THE legislative body of Porto Rico has passed a new net weight measure and labeling law, in which exporters to that country will be interested, as the provisions are quite drastic. The law is described as "An Act to Amend Section 17, of Act 135 of the Porto Rican Legislature," and reads as follows:

Section 1. That section 17 of act 135, approved August 18, 1913, "to establish standard systems of weights and measures; to regulate the purchase and sale of commodities and the ascertainment of weights and measures in industrial and commercial transactions, and to prevent fraud therein; and for other purposes," is hereby amended so as to read as follows:

Section 17. "That from and after the first day of February, 1914, all goods, wares or merchandise in boxes, packages, bundles or containers, which shall be the object of the industrial and commercial transactions shall have the net weight or quantity thereof contained in said boxes, packages, bundles or containers plainly marked upon the outside of such boxes, packages, bundles or containers, and it shall be unlawful to keep for the purpose of sale, offer or expose for sale or sell any such goods, wares or merchandise which are not so marked. Each sale of any such goods, wares or merchandise not so marked shall be deemed to be a separate and distinct offense; provided, however, that any such goods, wares or merchandise not named as required as above, which at the time of the passage of this act, are in Porto Rico in the stock of manufacturers of or dealers in such goods, wares or merchandise, or are already shipped and on the way to Porto Rico, may be kept for the purpose of sale, offered or exposed for sale or sold until Sept. 1, 1914; and provided further that the manner of marking of boxes, packages, bundles

or containers, may be established by rules and regulations prescribed by the secretary of Porto Rico."

The penalties for violation of the above provisions are contained in Section 20 of Act 35, which reads thus:

Section 20. "Any person violating any of the foregoing provisions of this act or of these rules and regulations prescribed in pursuance thereof and any person, who, as employer, or as an officer, director, stockholder or agent of any corporation, or as a member of any firm or partnership or otherwise shall direct, order, permit, or consent to any infraction of the foregoing provisions of this act, or of the said rules and regulations, shall be deemed guilty of a misdemeanor, and upon conviction thereof by a court of competent jurisdiction shall be punished for the first offense by a maximum fine of fifty dollars or by imprisonment for a term not to exceed ninety days, and for subsequent offenses by a fine of not less than two hundred dollars nor more than five hundred dollars and by imprisonment for not more than one year."

TO MAKE CONCENTRATED APPLE CIDER ON A COMMERCIAL SCALE.

The specialists of the fruit and vegetable utilization laboratory of the Department of Agriculture have completed arrangements for a commercial test of the recently discovered method of concentrating apple cider by freezing and centrifugal methods. As a result a cider mill in the Hood River Valley, Oregon, will this fall undertake to manufacture and test on the retail market 1,000 gallons of concentrated cider, which will represent 5,000 gallons of ordinary apple cider with only the water removed.

The new method, it is believed, makes possible the concentrating of cider in such a way that it will keep better than raw cider and also be so reduced in bulk that it can be shipped profitably long distances from the apple-growing regions. The old attempts to concentrate cider by boiling have been failures because heat destroys the delicate flavor of cider. Under the new method nothing is taken from the cider but the water, and the resultant product is a thick liquid which contains all the apple juice products and which can be restored to excellent sweet cider by the simple addition of four parts of water. The shippers and consumers, therefore, avoid paying freight on the water in ordinary cider. In addition, the product when properly barreled, because of its higher amount of sugar, keeps better than raw cider, which quickly turns to vinegar.

The process as described by the department's specialists consists of freezing ordinary cider solid. The cider ice is then crushed and put into centrifugal machines such as are used in making cane sugar. When the cider ice is whirled rapidly the concentrated juice is thrown off and collected. The water remains in the machine as ice.

At ordinary household refrigerator temperatures this sirup-like cider will keep perfectly for a month or six weeks, and if kept at low temperatures in cold storage will keep for prolonged periods. At ordinary house temperatures it, of course, will keep a shorter time.

To make the concentrated sirup, the cider mill must add to its equipment an ice-making machine and centrifugal machinery, so that the process is not practicable on a small scale. The specialists are hopeful, however, that the commercial test soon to be inaugurated in Oregon will show that it will be possible for apple growers to concentrate their excess cider and ship it profitably to the far South or to other nonproducing regions. The specialists also believe that it will enable apple producers to prolong the market for cider.

VENEZUELAN PURE FOOD REGULATIONS.

The recently promulgated pure-food regulations of Venezuela prohibit the manufacture and sale of food products injurious to health and require that adulterated and imitation products be plainly labeled as such, both on the immediate container and outer packing, and that their component substances be specified. Such labels must be in Spanish, with translations into other languages as desired. Besides regulating the marking of foodstuffs, the law establishes standards of purity for a number of alimentary products, including farinaceous foodstuffs, milk and milk preparations, and dairy products. In addition, detailed requirements are prescribed for alcoholic beverages, and the necessity of plainly indicating their actual ingredients and place of origin is emphasized.

Washington, D. C., Correspondence

(From Our Staff Correspondent)

WASHINGTON, Oct. 31.—The probability of further explosions in the food and drug trades, as violent as those which took place soon after the enactment of the food and drugs act of 1906, is suggested by the enactment of the federal trade commission and the Clayton anti-trust bills. The former forbids unfair competition. What is unfair competition? The answer is not to be found in anything enacted by Congress. The trade commission is to be the judge of that.

The benzoate and "what is whiskey" contentions may be looked at with a view to determining whether they do not show to what use the new legislation can be put.

The manufacturer who seorns benzoate blazons forth that fact on his labels. Why? To get trade. How does he hope to get trade by saying he does not use the modern preservative but adheres to vinegar, or something equally as hoary.

The answer is obvious. The consumer has been misled into the belief that the modern preservative is injurious, while the older one contributes to his stock of health. If the man who abjures benzoate happened to be one of those unfortunates who dare not take vinegar into his stomach, will the manufacturer go to the trouble of advertising the fact that, for some persons, vinegar is a poison? Could he hope to obtain trade by resort to such a method of advertising? Obviously not.

If the public were fully informed that the highest chemical authorities in the land had decided that benzoate is not harmful either in large or small doses, would the manufacturer who does not use benzoate be so anxious to declare on his labels that his product is free from benzoate or any other chemical preservative—whatever the words chemical preservative may or may not mean? To ask the question is to answer it. The declaration about benzoate is made with a view to getting the patronage of those who have been misled into believing that harmless coal tar preservative is positively deleterious. The fact that the most eminent chemists in the land have declared that belief to be erroneous is of no value in combatting prejudice or rather ignorance.

Under the new law the labels that do not offend the act of 1906 are subject to scrutiny to determine whether they are not being used to carry forward a competition that fair-minded men would condemn as unfair. The manufacturers who use benzoate are under a burden now that seems ridiculous for them to bear in view of the decision of the Remsen board. The board said the acid is not harmful. The law requires only those ingredients to be declared that are harmful, or words to that effect. The manufacturers who disagree with the board failed in their effort to get the preservative placed under the ban.

The new law affords opportunity, if anybody is disposed to test the question, to have a governmental body, fully informed as to the fact with regard to the innocuous character of benzoate, to determine whether advertisements appealing to ignorance and prejudice may be used without subjecting the users to the penalties of a statute forbidding unfair competition.

As to the whiskey fight, its reopening under the same statute may be brought about in the same way, because the distillers who put out a product containing all the higher alcohols make use of the word "straight" in such a way as to induce the buyer to believe they sell a superior product, while as a matter of fact it may be inferior to one made by a different method. There is not the least question but that the word "straight" has been given a secondary meaning in the whiskey trade that leaves the inference that whiskey which is not marked "straight" is inferior or crooked, while the fact may be and often is the very opposite.

If the cost of the article were a matter in which the government had any legitimate concern, possibly the insistence of a manufacturer using only vinegar and other old-fashioned preservatives might get by with his advertising without raising any question as to the fairness of such methods of competition. Vinegar may cost more, per unit of product preserved by it than benzoate. The writer does not pretend to know. So far as he can recall there never was any allega-

tion that benzoate lessened the food value of a product. In an irresponsible way the public has been told that benzoate is used to hide inferiority, to cover up rotten materials and in that way deceive the public, but so far as memory serves, such a contention was never seriously made by responsible men speaking in a place where their assertions could be called down in an effective manner.

In the same way it may cost more to make whiskey in the old-fashioned way—that is, without doing anything to take out the higher alcohols, but simply allowing it to "age" in a charred white oak barrel, or to get the color by means of caramelized sugar, but the laws are not supposed to give an advantage to those who persist in using more expensive methods of manufacture. In fact, the law is not supposed to equalize advantages or disadvantages of location, temperament or anything. The new law is supposed to afford a method for cutting out the advantages given by superior capital by limiting the operations of those who possess it, to methods that fair-minded men would not condemn were the facts presented under oath.

The food and drugs act is primarily intended to promote truth-telling. The federal trade commission act is intended primarily to keep business men within the bounds of fair-dealing. It is obvious that unfair dealing may not be a violation of the label law. It is not an untruth for a manufacturer to set forth that he does not use benzoate. It would be equally truthful for him to assert that he does not use any one of a dozen other things, equally harmless. If a consumer has a prejudice against benzoate, why, as the law is now enforced, he can protect himself by looking for a label that makes no mention of benzoate. It is not necessary for him to go around and inquire whether such a product is without the thing he deems not good for his stomach.

Of course everybody knows why the declaration is made on the label. The manufacturer might also proclaim his religious belief on his label and the law would not stop him, as it is now construed, but if the label about the religious conviction were used only in parts of the country where it would bring trade, the new law might inquire if the use of such a label was not intended merely as an appeal to prejudice, and intended to give an advantage in competition wholly aside from the merits of the goods themselves.

The new law is so broad and so general in its terms that the advertising matter used may be subjected to a scrutiny that is not permissible under the food and drugs act. While James Wilson was secretary of agriculture he threatened to make trouble for manufacturers who used the notice of guarantee in such a way as to mislead consumers into believing that it meant that the government has examined the contents of the package and had found them to be first class, pure and wholesome or otherwise approved by the government. He scared them into behaving. He had no real authority to do that, but under the new law he probably would have been able to get an order from the Federal Trade Commission forbidding the use of such advertisements.

FLOUR SENSITIVE TO TEMPERATURE.

Tests made in Buffalo bring out the fact that flour is sensitive to atmospheric conditions, causing it to shrink or swell. Charles J. Quinn, city sealer of weights and measures, working in co-operation with millers of that city, and R. R. Drake, of the Washburn-Crosby Co., made the tests. They placed bags of flour of various sizes in different parts of the city, some near the waterfront and others in extremely dry sections.

They were gathered together after being in the stores for six months. An examination of them showed that some were lighter and others were heavier than when they were placed in the stores. The heaviest came from near the river, while the lightest came from a dry section.

The tests were made to satisfy Mr. Quinn that bags of flour coming from the mill at the correct weight may become lighter or heavier, according to atmospheric conditions. The Brooks law provides that the weight of each bag of flour must be marked on the container.—Operative Miller.

Indiana Correspondence

INDIANAPOLIS, October 31.—The general food conditions in Indiana must have been unusually good as a whole during last month, judging from the reports sent into the state department of pure food and drug regulation by its inspectors. But four prosecutions were brought during the month and the total fines assessed amounted to but \$87.50, which is the lowest amount for several years. One case was brought for the sale of misbranded pop; one for the sale of misbranded beer; one dealer was prosecuted for the sale of milk which was below standard; one prosecution was brought for exposing foodstuffs to dust and dirt at the Indiana State Fair.

During the month 578 samples of food were analyzed, of which 529 were legal and 49 illegal. The five vinegar samples sent to the laboratory for analysis all proved to be illegal, being low in acidity. Most of the time in the food laboratory was devoted to the analysis of sodas, 547 samples being analyzed. Of this number 511 were legal and 36 illegal. The illegal samples were so classed because of the presence of benzoate of soda, saccharin or were misbranded.

Six hundred and eighteen food-handling places were inspected during the month of September and of this number nine were reported in excellent condition, 303 good, 285 fair, and 21 poor.

Three dairies were inspected. One was classed as good and two fair.

Of the 288 grocery stores visited five were in excellent condition, 101 were good, 119 fair and three poor.

Of the 48 meat markets visited two were rated excellent, 25 good, 19 fair and two poor.

Two of the 54 drug stores visited were rated excellent, 41 good and 11 fair.

Ninety-three bakeries and confectioneries were inspected. Of this number 60 were classed as good and 33 fair.

Twenty of the 53 hotels and restaurants inspected were rated good, 52 fair and one poor.

Seventy-three canning factories were inspected during the month. Of this number 27 were rated good, 37 fair and nine poor.

Four of the 11 ice cream parlors visited were rated good, six fair and one poor.

Inspections were also made of five creameries, three milk stations, two wholesale groceries, five slaughterhouses, three flour mills, two ice cream factories, one fruit and vegetable store, two poultry houses, and 32 bottling works.

During the month seven condemnation notices were issued against one bottling works, one canning factory, one confectionary, one milk depot and two restaurants, six because of unsanitary conditions and seven because of improper construction.

At the convention of the Indiana Federation of Woman's Clubs, in session at Evansville, October 22, a paper on "Pure Foods" was read by Mrs. Charles D. Hirst, of New York, who is known as a pure food expert. Mrs. Hirst discussed the infant mortality records in New York, and said practically all of it is due to the sale of bad milk. She said that club women finally took the question in hand and now, she claims, not a bottle of milk that is not pasteurized is sold in New York. She told how the poorer classes "rescued" milk bottles from the dumps of New York City and how this was responsible for much food poisoning.

Mrs. Hirst commended the food laws of Indiana and said she hoped the time will rapidly approach when other states will have as good laws as now prevail in this state on food subjects.

"I want to appeal to your common sense," she said. Can you construct a new building in grounds already occupied? In the pure food question we cannot construct a new one until all the old, nefarious methods are done away with. To club women is due the passage of the pure food and drug law."

According to information current here Indianapolis will become the center for a branch of the federal Department of Agriculture's research bureau on food products, notably butter, poultry and eggs, if plans laid at a recent meeting in Chicago by state authorities and Indianapolis citizens, are carried out. The purpose of the work in the new bureau is to save losses in handling food products, both by cutting down the cost of handling such products and by cutting down

the losses occurring chemically in the foods by shipment of the foods and through improper packing.

The farmers, poultry and market stock raisers and others throughout the entire state will be benefited by the bureaus, should they be established here, as a \$3,000,000 loss in eggs alone results in Indiana during the summer months from improper methods of marketing and handling the products. Such a bureau as is planned would go out to the producers themselves and show them the proper methods of handling the eggs, packing them, and then would provide easily accessible markets for them. The entire loss—or at least much of it—would be done away with through the agencies at the command of the bureau.

TENNESSEE CORRESPONDENCE.

NASHVILLE, Tenn., October 31.—The much advertised "Pure Food" town has nothing on Nashville, as revealed in recent photographs of that city. In Nashville most every food handling establishment is screened, and fruits and vegetables protected from dust, dirt and flies. Dr. Lucius P. Brown, state inspector, is striving for at least one "Pure Food" town in his state, if not the whole state.

A recent note in the "Food Law Bulletin" states that a certain food official in another state is about to enter upon a crusade against dining-car waiters and porters sleeping in dining cars. Tennessee has already held an investigation, and has communicated with every railroad in the state, with the result that the food department either has the assurance that this condition does not exist or, if it does, that same will be corrected.

Much attention in the Tennessee food department is given to the enforcement of the anti-narcotic law, enacted by the legislature of 1913. The purpose of this law is to confine the sales of opiates to prescriptions of physicians actually attending the patient. The law was made without taking into consideration the fact that Tennessee has several thousand drug addicts, who are compelled to have their drug. That is, no provision was made for the care of such addicts. The law gave to the Board of Narcotics Control, composed of the secretary of the state board of health and state food commissioner, the power to make rules and regulations, and it is under these rules and regulations that the old addict is taken care of—by way of permit. These permits are given by the board to whatever druggist is designated by the applicant upon the sworn statement of a physician that the addict requires a certain amount of drug and that this amount is necessary for the maintenance of life or reason. The permit calls for refilling the physician's prescription as often as is necessary until a certain limit is reached. The department finds many evasions of the law and has prosecuted quite a number of violators, such as bootleggers, etc. It is a good law and we in Tennessee see the need for it.

Considerable work is being done for the traveling public in the way of correcting insanitary conditions and safeguarding against danger by fire in hotels. Conditions are gradually improving, and with the support of the traveling men the department of hotel inspection is fast becoming a popular one.

The department has six inspectors, and besides other duties, they average about 150 sanitary inspections each during each month. That is, inspections of food handling establishments. A number of suits have been instituted recently against violators of the Sanitary Food Law with successful prosecutions. For instance, during the first two weeks of October, about fifteen have been brought, four in Clarksville, one in Jefferson City and eight or ten in Nashville.

D. L. Weatherhead, a graduate of the University of Illinois and recently with the Montana food laboratories, and B. R. von Shally, a graduate of Columbia University and a former chemist of the Remsen Board, have been added to the laboratory force.

This state is advocating the stoppage of the manufacture of heroin (ether diacetal morphine), since the authorities find that there is no *absolute* place in medical practice for it, and it is playing a great havoc with the young men of our state.

The department of food and drugs has shown exhibits at the Agriculture Special, State Fair, Tri-State Fair at Memphis and will send exhibits to Jacksonville, Fla., for the meeting of the American Public Health Association.

Michigan Correspondence

(From Our Staff Correspondent)

LANSING, Mich., October 31.—The sugar beet season having opened during the earlier part of October, the Michigan Food Department has been busy preparing the sugar beet inspectors for their work in this field.

Michigan is among the largest of the sugar beet producing states and one of the first to have a law regulating the weighing, taring and testing of sugar beets. The law was passed at the last session of the legislature (1913) and was enforced for the first time during last year's sugar campaign. It provides that the dairy and food commissioner shall have the enforcement of the law. He has the power to appoint two inspectors, who shall be competent sugar chemists and who shall travel about the state inspecting the methods of weighing, taring and testing used at the different weigh stations and factories.

Uniform methods for the weighing, taring and testing of sugar beets are prescribed by a committee consisting of the head of the department of chemistry at the Michigan State Agricultural College, the director of the experiment station, and the state analyst. The revenue for the enforcement of the law is provided for by requiring the sugar companies to pay one-fourth of a cent per ton on all beets manufactured into sugar.

Last year about 800,000 tons of sugar beets were sliced in Michigan. The most of these were bought on test, i. e., they were paid for according to the percentage of sugar they contained.

This year, it is expected, will be a banner year for those interested in the production and manufacture of sugar. The sugar beet crop is reported exceptionally good and with the increase in price of sugar, caused by the European war, the manufacture of sugar is expected to be a profitable business. All beets are to be bought on the flat ton basis this year.

Echoes of the recent arrest and discharge of the three Michigan food inspectors, who are accused of accepting bribes, are still heard thru the public press. All three are now out on bail awaiting trial. Some inside information was given out in an article in one of the state papers recently. It seems that one Schmidt, an egg dealer, made a complaint to the dairy and food department about a competitor's eggs. The inspectors visited the storage house and collected samples, supposedly of the competitor's eggs, but through a mistake got samples of Schmidt's eggs. The samples were found to consist of rotten eggs and were reported to the inspectors as such. When the mistake was discovered, Schmidt gave each of the inspectors \$25 to keep it a secret. In this way the inspectors learned that they could get some easy money. After their second demand for money, the egg dealer saw it was going to be a pretty expensive proposition, so made a complaint to the prosecutor and the arrests of the inspectors followed.

Commissioner Helme has appointed two inspectors to fill the vacancies created by the dismissal of the men charged with graft. Mr. Frank N. Dillon, 1302 Grand River avenue, Detroit, and Mr. George Lennon, 926 Kercheval avenue, Detroit, were selected. It is declared that neither had any political recommendation for the position and they were selected out of about 350 applicants entirely upon their merits.

A new division has recently been added to the dairy and food department called the dairy manufacturing division. Its purpose is to aid the manufacturers of dairy products in every way possible. The division is in charge of Mr. H. D. Wendt, a butter and cheese expert, who has had considerable experience in the manufacture of dairy products. He will collect statistics on the dairy industry, conduct educational scoring contests in butter and cheese and do everything in his power to improve the dairy products of Michigan. Two creamery and cheese factory experts have been connected with the department for some time. Educational scoring contests have also been conducted in the past, but it is expected that the new division working in connection with these men will be able to do much more effective work than ever before.

The department is thoroughly aroused over the egg situation in Michigan. According to the commissioner, Detroit has been the dumping ground for the bad eggs of Michigan, Ohio and other states. The "checks," "dirties," "spots" and "rots" come here, are opened and stored, and no matter what their condition, are sold to bakers. Then the public eat this

refuse in their cakes without knowing it. "But I am going to clean Detroit up as it was never cleaned before," says Mr. Helme. "For the rest of my term, I am going to pay particular attention to conditions here."

The state board of health will be sponsor for a new bill to be presented before the next session of the legislature. The bill will completely change the system for the enforcement of the health laws of the state. The idea, as outlined at the present time, is to divide the state into about thirty districts and appoint a full-time health officer in each district, who will give his entire time to the work of that district. The salaries will be ample, from \$3,000 to \$5,000. It is expected to secure competent, reliable health officers. The position will be filled by appointment and it is declared will be entirely free from politics. Dr. V. C. Vaughn, president of the American Medical Association, and nearly all the medical associations of the state have endorsed the move. It is believed this will be the most efficient method yet proposed to enforce the health laws of the state.

Michigan was well represented at the National Dairy Show held in Chicago, October 22-31. Officials of the Michigan Dairymen's Association had active charge of the exhibits from the state. They were assisted by James W. Helme, dairy and food commissioner; A. G. Carton, secretary public domain commission; Prof. A. C. Anderson, of the agricultural college; D. D. Aitken, president of the Holstein-Friesian Association. Monday, October 26, was set aside as Michigan day.

The hoof and mouth disease among cattle and hogs has been occupying the attention of the state live stock sanitary commission for the past three weeks. H. H. Halliday and W. R. Harper, two of the live stock sanitary commissioners, have been working in cooperation with Dr. N. G. Hough, an expert on this disease detailed by the U. S. Department of Agriculture. Two counties in Michigan, Berrien and Cass, and two counties in Indiana, St. Joseph and Laporte, are under strict quarantine. No cattle are permitted to come into these counties or allowed to go out. The disease is incurable and the animals affected are immediately slaughtered. The farmers are paid the appraised value of the cattle or hogs which they lose in this manner. The epidemic is now under control and it is thought the disease will be stamped out in about two weeks' time. This is the first appearance of this disease for about five years.

CHICAGO CITY FOOD WORK FOR SEPTEMBER.

The October 17 Bulletin of the Chicago Department of Health reports as follows in regard to the work of the Food Division:

For the month of September, 1,681 dairy farms were inspected, compared with 667 for the same month last year, an increase of 60 per cent. In the city 1,234 milk depots were inspected, of which 1,179 or 90 per cent showed scores of 70 or better. An excellent showing is made also in the 408 city and country pasteurizing establishments inspected, of which only 17 were found with a score below 70. Out of 484 samples of raw milk and cream examined by the laboratory for bacterial content, 3.6 per cent, showed bacteria above the legal number. Out of the 424 samples of pasteurized milk and cream 44.3 per cent were found to contain more than the legal number of bacteria. Examinations made of 801 samples for temperature showed that 68.5 per cent were above 60 F. The figures showing both bacterial counts and temperature clearly indicate the need of improvement in conditions that so materially affect the safety and value of this important and universal article of food.

During the month 248 new suits were started for violation of the food laws and 606 are now pending. Condemnation of foodstuffs, including those made at the U. S. Yards, totaled 430,907 pounds.

REFRIGERATING ENGINEERS MEET.

The tenth annual meeting of the American Society of Refrigerating Engineers will be held in the Engineering Societies building, 29 West Thirty-ninth street, New York City, on Monday and Tuesday, November 30 and December 1, 1914.

New York City Correspondence

(From Our Staff Correspondent)

NEW YORK CITY, Oct. 31.—Plans for a terminal market with cold storage facilities are now being considered by Mayor Mitchell's committee on food supply. It is estimated that the value of foodstuffs handled annually in the city of New York amounts to \$900,000,000 and that 10 per cent of this, or \$90,000,000, could be saved annually by adequate terminal facilities. Such a sum retained in the hands of the citizens could be used for better renting and better living. The object of the terminal plan is to eliminate the present large cost of unscientific terminal handling and the extortionate rates at present exacted, and so to afford retail merchants an opportunity for purchasing and selling foodstuffs at the lowest prices.

New York can only be fed by the rail and water lines, and a terminal distribution center should be established where rail and water lines meet. Two locations were suggested, one at the foot of West 59th street and the other at Wallabout Market in Brooklyn. The committee, however, favors the latter, and it is planned to ask for an appropriation of \$100,000 to dredge the waterway leading into the market, so that freight lighters and vessels of small draft can be accommodated.

The plan contemplates the erection of market buildings and a five-story cold-storage plant. It is intended to lay tracks from a long pier between Wallabout and the Navy Yard leading to city property on which will be erected a three-story market building. The first floor will be used for the unloading of cars which will be brought up to the pier on floats. The second floor will be devoted to cold storage rooms which will be rented by the city to dealers. The third floor will be divided into refrigerating rooms with small compartments that will be let out to thrifty housewives at comparatively small rentals. Those who advocate the plan believe that it will cost between \$300,000 and \$500,000 to make Wallabout Market a modern terminal market.

The free markets established by the city continue to gain in favor. A petition has been sent to the city officials to make the markets permanent. A committee of the Retail Grocers' Association of New York told Borough President Marks what they thought of the free markets. They spoke of them as "markets for food fakers," "places where the poor are robbed," and "farmers' markets without the farmers." The principal objection of the committee was to the fact that no fee was charged to sell in the open markets, making it possible for irresponsible dealers and pushcart men to undersell the regular retailers who have rent to pay.

In reply Mr. Marks explained that it was his intention as soon as the markets were paved and sheltered to charge a small fee. "This is an objection," Mr. Marks said, "that is based more on fear than on facts. The pushcart men and the hucksters who have come into these markets are not new competitors to the store. The only new competitor is the farmer, and when you consider the number of farmers coming in and selling at retail, when you divide their produce by the number of stores, the average is not alarming." The establishment of more free markets is now contemplated in West 42d street, Washington Heights, the Kips Bay and Dutch Kills sections, and Jamaica. Postmaster Kelly of Brooklyn proposes to construct a parcel post depot at the Long Island Railroad terminal to which would come all the shipments from farmers all over the island.

The mayor's committee on food supply is co-operating with the board of education by distributing in the city's schools pamphlets telling how and what to buy. Three pamphlets have been distributed, "How to Buy," "What to Buy," and a third on "Preparation of Vegetables for the Table"; the latter containing a list of forty different vegetables with directions as to how to cook them to advantage, how to prepare each and every one so as to avoid waste, how they can be used to make fifteen different soups, etc.

A new poultry stand has been opened up at the Queensboro Bridge market with 1,000 head of poultry which were sold at the following prices: Corn fed spring chickens, 17 cents a pound, young L. I. ducks, 18 cents, and fresh milk-fed chickens 20 cents a pound.

An inquiry is being conducted here by the state of New York to determine whether a monopoly in butter and egg dealing exists in New York City. The attorney-general

charges that the Mercantile Exchange has entered into an arrangement with the packing and cold storage houses to restrain competition in the supply and price of eggs. He alleges also that the exchange illegally restrains competition by means of the Producers' Price Current published by the Urner-Barry Company.

He states: "It is quite clear that the Mercantile Exchange is not maintained for the purpose of bona-fide trading in butter, eggs and cheese, but is nothing more or less than a conference of New York dealers who gather daily to test the firmness of the market and disseminate information or misinformation as the case may be, with respect to prevailing conditions."

The Merchants' Refrigerating and Terminal Warehouse Co., the Armour Packing Co. and Swift & Co. are among the firms mentioned as being connected with the alleged combine.

It was brought out at one of the hearings that a large consignment of butter sold by members of the Mercantile Exchange to the U. S. Government for use by sailors at Vera Cruz was passed by an inspector of the exchange although only 10 per cent of it was up to the grade specified by the contract.

In an effort to ascertain whether there is an interstate combination of dealers to raise the price of foodstuffs in New York, the department of justice has ordered an investigation.

Several Jamaica Bay oystermen, who have been forbidden by the board of health to raise oysters in Jamaica Bay on account of its proximity to a sewer have brought suit against the city, and if they are successful the city may have to pay \$1,000,000.

The board of health has published a bulletin entitled, "How to Cut the Cost of Living," in which it states that as proteins are necessary to make up for the wear and tear of the body machinery, it would be more economical to obtain the protein by eating fish instead of meat. A comparative table is given showing the relative percentages of protein in different kinds of fish and meat. Macaroni and cheese is also suggested as a substitute for meat.

A report on milk recently published shows that for the past year or two the larger milk companies selling milk in this city have purchased milk from dairy farmers on the score-card basis. In general the contract provides for a premium of 10 cents per hundred-weight for a score above 68, particular attention being given to methods of operation.

The food inspection service in Greater New York has been districted according to a plan which corresponds with the latest United States census maps. The city is divided into twenty-four districts, and to each district three men will be detailed, one as senior inspector and two as junior inspectors. The senior inspector will act as district supervisor, and will be held responsible for the sanitary condition of food manufacturing establishments, and of wholesale and retail food establishments, as well as for the care of all foods manufactured therein.

It is the intention of the department to inaugurate lectures for the purpose of instructing in their new and broader duties, inspectors of the food division whose activities have heretofore been confined to meat inspection and milk inspection.

The department of licenses, co-operating with the health department, has extended its campaign to prevent persons suffering from tuberculosis in an active stage, receiving licenses under which they sell food from pushcarts. When it is realized that there are approximately 10,000 persons operating pushcarts, the great majority of whom handle food, and that this food daily goes into the homes of many thousands of families, the menace through contagion to those consuming the food can not be overestimated. This is the first time in this city that such a check has been put on this class of persons, and all persons applying for licenses to sell food must henceforth be examined by the board of health.

The export situation at this port at the close of September, the second full month of the European war, shows distinct improvement so far as actual volume of merchandise sent abroad is concerned. The heaviest September exports

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The problem was brought to the laboratory, where an entirely satisfactory product was developed which could be made at less cost than any of the special preparations he had heretofore used.

Every food manufacturer has some similar problem. It may not be cream centers. It may be the development of salable material from waste or by-products.

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"GOOD-BYE FLY"

According to Department of Agriculture Bulletin No. 118: Apply 0.62 Borax to every 10 cubic feet of manure. Apply Borax particularly around edges; sprinkle with 2 or 3 gallons of water. This treatment should be repeated with each addition of fresh manure. Flies lay their eggs in fresh manure. Borax prevents their hatching.

Don't use more Borax than recommended above.

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were due to large purchases of foodstuffs by the warring nations which had a value approximating \$15,000,000.

Some color is lent to the expressed suspicions of the British war office that foodstuffs of American origin are finding their way into Germany from here, for the use both of civilians and the army, via Denmark and the Netherlands. The latter country has denied officially that such is the case, but local custom house records show a surprising increase in exports from this port to the two neutral countries since the outbreak of the war. During the first week of October merchandise for Denmark was shipped from this port having a value of \$1,488,317, while the Netherlands took \$1,146,402. Denmark's purchases, in fact, exceed those of France in this market by \$300,000. A report issued by the custom house of the foodstuff exports from here for the period October 1 to 10 shows that England took 271,786 bags and 40,130 barrels of refined sugar and 3,500 bags of corn sugar. Wheat exports were: Netherlands, 1,049,522 bushels; France, 443,504 bushels; England, 269,286 bushels. Wheat flour exports to England aggregated 49,573 bags and 1,080 barrels, France took 35,797 bags and Denmark, 30,106 bags. France shipped out of this port 37,590 quarters of beef.

The question of foodstuffs being considered contraband of war is causing some concern here, but England's acquiescence in the shipment of American foodstuffs to Holland is of course based on Holland's guarantee against non-transshipment to Germany.

Bradstreet's index number on October 1 shows a drop during the month of nearly 7 per cent in the average price of commodities. In breadstuffs, provisions and in fruits there were declines ranging from 5 to 20 per cent.

Just what the war has done to certain wine imports is indicated by figures which gave the amounts entered at this port in the month of September. Champagnes were the hardest hit of all, last month's receipts consisting of only six cases, against 12,928 cases in the corresponding month a year ago. Rhine and Moselle wines also dropped off sharply, only twenty-five cases having been received, as compared with 4,956 cases in September, 1913. Other declines were shown in Bordeaux and Burgundy, which together fell off 2,000 cases. Imports of Sherry and Port increased for the month, as did receipts of brandy, Holland and British gin, and cordials. No German beer came in, against 26,056 packages last September.

Receipts of butter for the week ending October 10 were 33,732 packages, or slightly over 2,000,000 pounds, while on the corresponding days of the previous week the supply was nearly 3,000,000 pounds. This rapid shrinkage caused an advance of 1 cent per pound on the highest grades of creamery, while commercial grades of butter also strengthened and fine butter is to be had for 31½ cents, with good grades selling at from 25 to 29 cents. Owing to the fact that the strong speculative buying in the country for the past four weeks has subsided, more cheese has been placed on the open market, resulting in a decline of 1 cent per pound. Fancy cream cheese is selling at 15 cents wholesale, with a fair grade going at 14½ to 14¾ cents. There was a material increase in the demand for eggs from consumers at the close of last week. The finest fresh gathered western candled eggs retailed at 34 to 35 cents.

About 100 carloads of live poultry were received last week; the wholesale market declined to 16-17 cents on fowls and 14-15 cents on spring chickens. We are having comparatively light receipts of native beef. Prime cattle are selling at 15½ cents, with average steers at 14½-15 cents. The steamer Vauban brought 15,000 quarters of beef from Argentina last week. Argentine beef is showing a wide range in quality and most of the cargo now unloading is frozen hard and not exceeding 12-13 cents on hindquarters and 9-10 cents on forequarters. There is an accumulation of lamb on the market and prices are 1 cent per pound lower, while mutton is ½ cent per pound lower. The largest supply of fancy fruit that this market has ever known is on hand at present.

Among the various legal rulings here recently, W. A. Brown & Co. lost in a case dealing with the classification of beans put up in hermetically sealed tins and in stone jars. Duty was taken at 2½ cents per pound under the old tariff, which provides that rate on goods put up in this manner. The beans were claimed dutiable at 40 per cent advalorem as prepared vegetables.

Two local coffee importers were found guilty for having shipped eighty-four bags of washed Venezuela coffee in bags to Milwaukee which purported to contain coffee from Colombia.

The coffee exchange has established a clearing house to clear balances of members of the board in accordance with rules recently approved by the governing committee for such an institution.

NEW YORK STATE CORRESPONDENCE.

(From Our Staff Correspondent.)

ALBANY, N. Y.—The last session of the legislature passed "An act to amend the agricultural law, in relation to adulterated and misbranded food." This amendment in its relation to Section 200 makes no change except that it adds to the list of those affected. After mentioning that no firm, association, or corporation shall sell, offer, or expose for sale, it adds "or serve in any hotel, restaurant, eating house, or other place of entertainment." The prohibition is on that which is "adulterated or misbranded." The term food includes confectionery and condiments. The amended law is only a little longer than the original which it supplants, and it went into effect April 23.

There is an addition of a few words in one other part of the law relating to the receptacle or bottle from which the food is served or sold, which reads, "or if it shall be contained in or served from any bottle or receptacle falsely marked, labeled, or branded as to name of the person, party, or corporation manufacturing the same," then it shall be deemed adulterated.

A law was also passed relative to cold storage of foods, and its enforcement is with the state commissioner of health. It provides that products must not be stored if not in a pure and wholesome condition when received, and the date when stored must be branded or stamped upon the package. Also when the article is taken out the date must be again stamped or branded.

It is unlawful for any person to offer for storage any product not in a pure and wholesome condition, and it is likewise unlawful for a storage party to receive any products that are not pure, and there are penalties for violation of the law. No products may be kept in storage longer than ten months except butter, which may be stored twelve months. It is provided that the commissioner of health may authorize inspection of storage plants and storage articles, and may cause parties to testify whenever conditions warrant.

By an addition to the public health law the sale of certain drugs is prohibited except under certain conditions. "No pharmacist, druggist, or other person shall sell, have, or offer for sale, or give away any chloral, opium or any its salts, alkaloids, or derivatives, or any compounds or preparations of any of them, except upon the written prescription of a duly licensed physician, veterinary, or dentist," but there is an exception in the case of proprietary medicines. These, if sold in "good faith," are not to be disturbed unless they "contain more than two grains of opium or one-fourth grain of morphine or one-fourth grain of heroin or one grain of codeine, or ten grains of chloral or their salts in one ounce of the preparation." There is also a prohibition on the sale of hypodermic syringe or needle. This law contains many provisions and makes up twenty-one folios.

One other law comes under the authority of the commissioner of agriculture, and relates to the grading and branding of apples in closed packages. Four grades are provided for, "standard fancy," standard A, standard B, and "unclassified." It refers to hand picking, to size, color, shape, and to freedom from dirt, disease, insect and fungus injury, bruises, etc. Any facts as to inferiority must be stamped upon the barrel or package. This law is for the protection of growers quite as much as for the consumer of apples or the dealer who handles them. The state produces an abundance of apples, and they are of superior quality. Sometimes other fruit is substituted for them, and branding is a guaranty of good quality.

ICE IN PACKING HOUSES MUST BE PURE.

Hereafter meat inspectors are to examine the quality of ice used in packing establishments under their supervision. A new regulation of the Bureau of Animal Industry, United States Department of Agriculture, published in its Service and Regulatory Announcements, directs inspectors to take samples of the ice whenever there is reason to doubt its purity and submit them to the Department in Washington for analysis. Where natural ice is used the inspectors must investigate the source of supply and the possibilities of pollution. In case of artificial ice the source of the water used in its manufacture must also be investigated.

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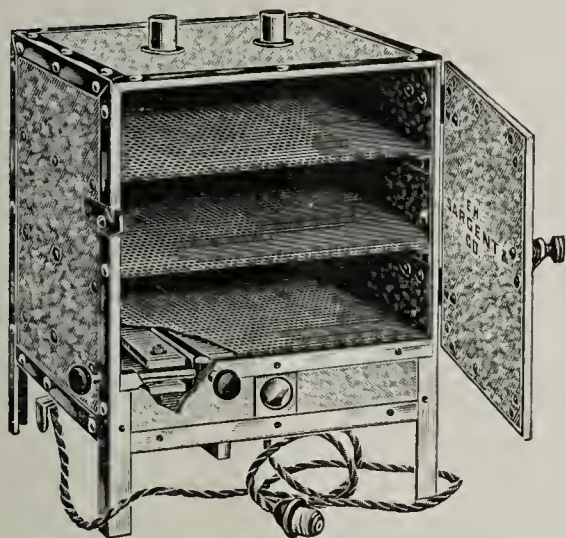
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NEW YORK



Ohio Correspondence

(From Our Staff Correspondent)

COLUMBUS, O., October 31.—On November 15 the Ohio dairy and food department will close its fiscal year, one that has been epoch-making. It has afforded a thorough test of the form of reorganization which went into effect in August of 1913, by which it was made a division of the agriculture commission. Without losing its personality in any way, it has by this adjustment been brought into more sympathetic relations with kindred branches of the public service. Through removal of awkward distinctions, it has thus been able to appropriate to itself facilities and resources of help and counsel that have largely advanced its efficiency. The group of bureaus constituting the commission have worked together in harmony and with such good results that none would want to go back to the old plan.

Another advantage that came to the department during the year was that of being relieved of regulation and control of the liquor traffic. That very properly became subject to a separate department with the adoption of a license law. The machinery of the latter would have detracted from efforts that are of immeasurably greater importance. Evils of strong drink directly touch only a portion of the people, large sections of the state being practically free from contact with the traffic, while pure food is a daily vital matter with every man, woman and child.

Thus given co-operation on one hand and having a burden lifted from it on the other, the work of the department in volume and results secured has made the year just about to close by far the best it has ever experienced. Laws have been enforced vigorously and impartially, wise new rulings promulgated, and codes established for various industries which hertofore had been without standards of cleanliness. There has been such a distinct advance all along the line as to attract the favorable attention of colleges, professional bodies and manufacturers' organizations, both in and out of the state.

In view of all this, there is much uneasiness, whether justified or not, as to the future of the department in case the pending election should bring about a change of administration. The present governor, who is asking for indorsement by being continued in power, ranks as an extreme progressive. He was elected on a platform which cut loose from many old traditions, and the grouping of kindred departments has been in fulfillment of party promises to handle the affairs of the state in the same economical, business-like manner that would govern a modern private enterprise.

Early in November Commissioner Strode will get all the members of his department together for what will probably be the most important conference of the year. One of the objects will be to plan the campaign in the field for the next twelve months, in the light of the past year's work. Another will be to decide upon what will be asked for of the legislature which convenes in January, in the way of advancing the service. As a basis of securing recognition data must be got together in concrete, convincing form. As intimated in a previous letter, a law requiring manufacturers of food products to register with the department is likely to be one of the important requests made. Better facilities for analysis is also a crying need. B. S. Bartlow, chief of the food division, being an ex-member of the legislature, is well qualified for following up any measures that may be introduced, and seeing to it that they do not get side-tracked. Legislative matters will occupy a large share of his time after the law-making body gets settled down to business.

There has been the usual grind during the past month of looking after violators, but no noteworthy case has developed. Wholesome respect for the pure food laws is noticeably growing among those industries which have been disciplined. Canning inspection has been unusually prolonged this year by reason of the frost holding off. In corn and tomatoes particularly the volume of product will exceed that of any previous year. Canning Inspector Robinson is still in the field. Some complaints have come to the department regarding tomato pulp, but investigation has not disclosed any breach of the law by manufacturers. A case has developed where it would appear that a ketchup manufactory is trying to injure a rival through false charges.

Harry S. Mesloh, dairy inspector, and Septimus Mawer, chief food inspector, are in Chicago attending conventions

pertaining to their lines of work, such bodies being in connection with the national dairy show. In a preliminary report to Chief of Division Bartlow, on experiences to date, they state that the proceedings and the exhibits have a wonderful educational value, and that by reason of same they will be able to increase their own efficiency. Among exhibits found there was one from Ohio State University, in which the department's literature is being used. This is a gratifying example of appreciation and co-operation on the part of another branch of the state service.

Owing to the fact that the time of inspectors cannot be spared, the department is forced to refuse further requests to stage its traveling exhibit. Ending with a corn and culinary show at Van Wert in November, this exhibit, which has created such great interest at fairs and other public gatherings, will go permanently into winter quarters.

Should Ohio declare for state-wide prohibition at the November election in the matter of the sale and manufacture of intoxicating liquors, as now seems probable, the drug branch of the dairy and food division will have to provide for increased demands upon its resources before prohibition goes into effect. Chief Drug Inspector Hower, who has been making a study of the matter, based on the experience of other states, believes that the "dope" evil will be increased from 300 to 400 per cent. It is the history of most cases of confirmed alcoholism that the victim when he can no longer procure the stimulant to which he has been accustomed, turns to drugs. The drug bureau hopes during the winter to secure legislation that will require all druggists to preserve a register of names of persons to whom they sell narcotics. Such sale is of course now illegal except by a physician's prescription, but a record would lessen the danger of this being abused. The state of New York has such a law, even providing the blank on which the prescription is written.

A noteworthy event of the month was an address by B. S. Bartlow, chief of the food division, before the agricultural institute workers, who were in session here at the state university for several days. The subject, "Frauds in Marketing," was handled in an exceedingly interesting as well as an instructive way. He first disabused the popular idea that food adulteration was an evil of modern origin. Hundreds of years ago in Europe men were fined, whipped imprisoned and even hanged for this form of stealing. In the more primitive conditions which formerly existed in this country, when a large share of the food was produced by the consumer or purchased of neighbors, there was very little adulteration. The abuse had developed with the congestion of population, and the necessity of depending upon large distributing centers.

In a concise, detailed way, Mr. Bartlow gave an account of the principal foods that were made subject of adulteration or substitution, or which were marketed in an unfit condition. He gave the means for detection in most instances, which placed the matter up to the intelligent consumer, as to whether he or she was willing to be imposed upon.

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Quaker Oats is put up also in a 25-cent size, nearly three times as large as the 10-cent size. By saving in packing it offers you 10 per cent more for your money. See how long it lasts.



The Driving Force

For Human Machinery is
Delicious Quaker Oats

Every atom of energy—every spark of vitality—comes from something fed.

It's the same with children as with locomotives. Their power to do things depends on supplies of stored-up energy.

That's why children need a vim-food—need it in abundance. So do workers of all ages. And that means Quaker Oats.

One fair-sized dish of Quaker Oats supplies a thousand calories of energy. Nothing else grown can compare with it.

We have made this vim-food a dainty. We have made it so luscious that millions of mothers insist on this matchless brand.

Quaker Oats

The Delectable Energy Food.

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We have made to our order—from pure Aluminum—a perfect Double Boiler. It is extra large and heavy. We supply it to users of Quaker Oats for cooking these flakes in the ideal way. It insures the fullness of food value and flavor. See our offer in each package.

10c and 25c per Package
Except in Far West and South

(718)

Pennsylvania Correspondence

(From our Staff Correspondent.)

HARRISBURG, Pa., Oct. 31.—Seventy-five cold storage warehouses doing a business involving storage of food for more than thirty days have taken out state licenses. This number is slightly less than for the first year in which the law was in operation, and the number of violations of the act has been steadily decreasing during the last six months. Prosecutions ordered under the law have been almost wholly of merchants who refuse to placard cold storage food as such. The cold storage people and the wholesalers have supported the state authorities without swerving, although everyone hopes that the courts will give a decision on the constitutionality of the act.

The legislative cold storage commission, which has deferred its sittings until after the state election on November 3, is planning to make a trip of inspection to the big warehouses of Philadelphia to ascertain how the food comes in from the country districts which supply that city and then to go to Erie to investigate the fish storage.

Considerable sentiment in favor of changes on the periods of storage for butter and eggs is being heard, but it will be opposed by the Grangers and by women's clubs, which have been getting ready to present their side of the matter.

In this connection it might be stated that there was a one day's flurry a short time ago over a charge that attempts to bribe had been made during the passage of the bill through the last legislature, but everyone connected with the bill came out with such prompt and circumstantial denials that the politicians could not even find anything left to take up for campaign speeches. Oddly enough, although this campaign for election of a governor and other state officers and a legislature has brought out almost every issue that could be imagined, from the hours of labor for people in canneries to workmen's compensation, cold storage seems to have escaped.

One of the gubernatorial candidates has been asserting that as false weight and measure is an abomination, he proposed if elected to see that the laws governing weights and measures are stiffened up, and that food shall be kept pure and sold according to law. Cold storage, however, does not seem to be encountering as many rocks as was the case two years ago. It appears to be recognized that some changes must be made, but just now welfare legislation appears to be most in the public eye.

The official report of the crop reporting service of the state department of agriculture gives for the first time some information which may be regarded as authentic. The document is a summary of reports from every county up to October 1 and shows that the apple crop for the year is 150 per cent ahead of that of 1913, but, unfortunately, the service is too new to enable much of an estimate to be made on peaches, tomatoes, cherries and small fruits. The potato crop of the state is declared to be only about 90 per cent of that of last year.

The wheat yield is reported at the record breaking figure of 24,272,000 bushels from an acreage of 1,321,000. This acreage will be increased this year, Pennsylvania being almost exclusively a winter wheat state. The statement is also made that four per cent of the 1913 crop is still in farmers' hands.

The rye crop is given as 4,760,000 bushels from 280,000 acres, while oats is estimated at 31,117,000. The corn prospects show about 90 per cent of the normal yield, the summer storms having caused a loss of 5 per cent. The cut for ensilage is estimated at 10 per cent, but the pasturage report shows that conditions are bad, owing to prolonged dry spells during the late summer and autumn. These crop reports are to be issued monthly and are to be taken from the statements of about 1,500 persons.

Steps are being taken by the state dairy and food agents to prevent watering of milk, which appears to be prevailing to some extent in the vicinity of Philadelphia, and the arrests ordered lately have been mostly for that offense and for the sale of articles unfit for food.

Licenses for the sale of oleomargarine to the number of 430 have been issued by the dairy and food commissioner as of October 1, making the grand total issued in the state for the year almost 2,175. This is the largest number ever issued and has contributed materially toward sending the receipts of the division far and away above any previous record. The

income from nine months of this year, reports Commissioner James Foust is considerably in excess of the appropriation to run the whole division for two years.

Owing to demands for information the department of agriculture is putting out a bulletin containing the latest compilation of lists of all canneries, creameries and condenseries in the state as well as the names of all cheese factories. In addition the bulletin will give information as to shipping. This list will be greatly appreciated as the state received much commendation for its list of orchards and information on the kinds of food produced.

Chief James Sweeney, of the bureau of standards, says that he has received very few criticisms of the standards of tolerance fixed. The sealers of the state have taken up the suggestion for a uniform system of marking and will present a bill. It is stated at the capitol that the next legislature will be asked to stipulate that all sales of commodities shall be made by weight.

GOVERNMENT ADVICE FOR POULTRY SHIPPERS.

It will soon be one year since the calamitous dressed poultry season of 1913 wrecked many handlers of poultry, sent tens of thousands of pounds of chickens, turkeys, ducks and geese to the crematory, and left the consumer with such a strong aversion to the taste of the poultry that reached the market in "off" condition that sales have suffered ever since. This fact is being used as a text of the sermon which experts in poultry handling in the United States Department of Agriculture are preaching to poultry shippers all over the country.

Shippers agree that the spoilage of dressed poultry during the autumn of 1913 was unparalleled, and that the rest of the year has been, financially, one of the worst on record despite the scarcity of meat. Specialists in the department consider that the blame rests chiefly upon the man who killed, picked, chilled and packed the poultry and sent it to market. This man bought the birds alive, hence they were not decayed when he got them. The railroads, in general, have worked diligently at their refrigerator lines and it is well known that shippers who packed their goods properly found the railroad service last autumn sufficiently satisfactory to deliver the product in good order. The receivers of poultry were hunting for stock that could be sold to a high class trade—but the inspector did not have to look far for poultry that was absolutely unfit for food.

The department accompanies its words of warning with words of advice to the poultry dressers, telling them how to handle the birds to ensure high quality and a minimum change in composition.

VEGETABLE MARGARINE.

Vegetable margarine consists of a specially treated mixture of vegetable oils, says the London Times. The chief raw materials are cocoanut, cottonseed and arachid oils, skimmed milk, coloring matter, boric acid and salt. Cocoanut oil is the principal ingredient of vegetable margarine, as may be seen from the following general recipe:

	Lbs.
Cocoanut oil	425
Cottonseed oil	100
Skimmed milk	250
Salt	25
Boric acid	2

In making vegetable margarine a portion of the oils and all the skimmed milk are first churned together. When this mixture has attained the required consistency, the rest of the oils are added and churned until finished. The subsequent processes are carried out in the same manner as in the manufacture of oleomargarine. Margarine is usually packed in wooden tubs, lined with either butter muslin or grease-proof paper. It is also sent out in the form of "pats" of various weights, wrapped in a similar manner.

Apple production in the United States this year promises to be 210,000,000 bushels, against 145,000,000 bushels last year, and 235,000,000 bushels in 1912.

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Prompt Deliveries

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WITH OFFICES IN ALL LARGE CITIES

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if you want your guests to praise it. Delicate in flavor, rich in substance, clean, pure and fresh. Ask for it.

Try ATMORE'S



BUY PURE COMPRESSED YEAST

The discussion about using starch in Compressed Yeast has reached the point in the United States of a decision forcing those who used it to declare the fact on the wrapper or label.

That is how we administer the Food Laws in this country.

In Austria where they do things more thoroughly, the chemists of the Royal Experiment Station of Vienna investigated the question for some years and finally reported against the use of Starch in Compressed Yeast for the reason that when mixed with Yeast "STARCH IS LIABLE DURING A CERTAIN STAGE OF THE DETERIORATION TO HIDE PUTREFACTION OF THE YEAST AND THEREBY FAVORS THE MARKETING OF PRODUCTS UNWHOLESOME AND DANGEROUS TO THE PUBLIC HEALTH."

Thereupon the Austrian Government promptly passed a law prohibiting altogether the use of starch in Yeast.

We Do Not Use Starch in Yeast

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2407 La Salle Street

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CHICAGO, ILLINOIS

Utah Correspondence

(From our Staff Correspondent.)

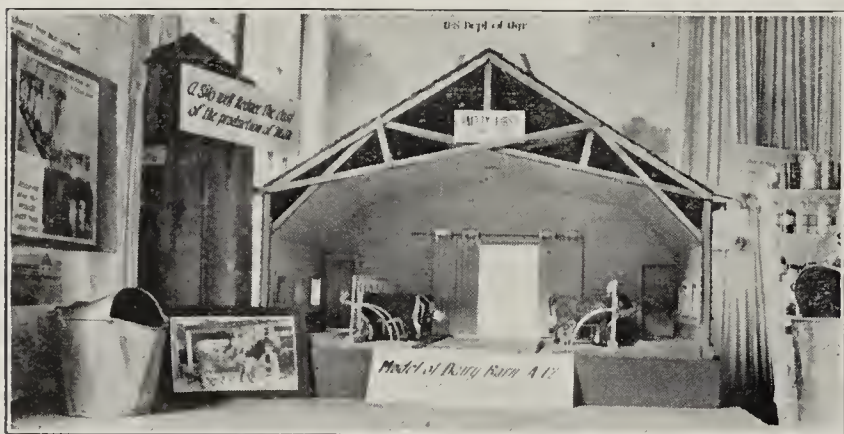
SALT LAKE, Oct. 31.—The checking up of the scores given the various canning factories of Utah, just completed by officials of the state dairy and food department show that the system of keeping watch over these plants by the new score card system has proved an immense success. There are about thirty-five canning factories in the state and of these seventeen made scores of more than 85 per cent perfect, a number attaining a grade of 95. All the rest scored 70 per cent except one, which fell below 50 because of inferior equipment and buildings. Even this factory scored a good grade on its handling of products. Upon the orders of the state food department, the officials of the negligent factory agreed to remodel their plant and make a general change in conditions before the next canning season opens.

Willard Hansen, state dairy and food commissioner, ascribed the improvement in the canning conditions in the season which closed about October 1, to competition for high scores on the score card and the fact that the various canners realized that these scores would be published before their products were long on the market. During September, Utah again had a "Governor's Day," in which Governor William Spry, members of the state dairy and food bureau, Commissioner Willard Hansen, deputy commissioners and state officials and heads of departments visited all the important canneries.

This is the first year that Utah has had the score card system for canneries and it has been so successful that the state food department is seriously considering its application to grocery stores, bakeries and slaughter houses.

At the Utah State Fair, held in Salt Lake during the first of this month, pure food exhibits played an important part. There were excellent showings of various food products manufactured in Utah, such as canned goods, dairy products, candies, coffee and tea, beer, and nearly everything made here. These and the horticultural exhibits were bigger and better than ever before. But the showing that attracted the widest attention among the housewives was that of the state dairy and food department and the dairy division of the United States Department of Agriculture.

This exhibit, an illustration of a portion of which is shown herewith, was prepared under the direction of State Dairy and Food Commissioner Hansen and J. E. Dorman, chief of



DAIRY DEPARTMENT EXHIBIT AT UTAH STATE FAIR.

the western federal dairy division, with offices in Salt Lake. A feature was an ideal miniature barn, built to the exact scale of an inch and a half to the foot. There was also an exhibit of genuine and adulterated food and drinks with explanations of how foods are adulterated and why. It was shown, and visitors to the booth were told, that most adulterations are not to injure the health but to "injure the pocketbook," as Chief Deputy Heber C. Smith so aptly says.

October 20 was "Utah Apple Day." This day, like "Orange Day" or "Raisin Day" of California, is becoming an established institution in this state and is attracting widespread attention to the fact that Utah raises fine crops of apples. The principal celebration was in Salt Lake, although Ogden, Provo and many of the smaller towns of the state gave the day attention. "An apple a day keeps the doctor away," was the slogan and everyone in Utah ate, talked and thought apples. All railroads running into Utah had special "Apple Day" menus in their dining cars, all the clubs and restaurants served apples in various forms, and prizes were awarded by

the Salt Lake Commercial club for "Apple Day" window displays.

While the state dairy and food department was investigating the spread in the flour mills of the state of the Mediterranean moth, which caused so much damage to flour, it was discovered that the achneumon fly, which was recommended by government experts as a moth destroyer, is present in many of the mills and rapidly increasing. It is hoped that the eradication of the moths will thus be a natural one, as professors in the Utah agricultural college have declared that the baby flies will feed on the eggs of the moth and in time wipe out the pest. However, the campaign against the moth is still being prosecuted and mill owners are being urged to use the radiation heating system, which sends the mill temperature to 130 degrees and destroys the moths, larvae and eggs.

State food officials this month have again been experiencing trouble with violators of the short-weight butter law and as a result plans are now on foot for having a standardized butter package law presented to the legislature, which meets January 1. The officers feel that they have had enough trouble with 15-ounce "pounds," but during this month a butter manufacturer placed a package on the market labeled "13 ounces" and the department was unable to secure his conviction.

Some "very choice" brandy, consigned by a Louisville, Ky., firm to a local liquor company was seized two weeks ago and the case is still pending in the courts, the consigning firm having been notified of the seizure. While the liquor was labeled "very choice," an analysis by Herman Harms, state chemist, showing that it was really only neutral spirits and caramel coloring. A total of six barrels was seized.

Another food law that the state food department hopes to have strengthened at the coming legislature is the "false advertising law." The present Utah law does not cover those firms which advertise falsely products made outside the state and it is hoped that a statute similar to the famous "Printers' Ink law," making publishers responsible for advertisements but forcing advertisers to give good bonds, may be secured here.

The alleged "shrinkage" of candy has been found by the food officials to be more of a short-weight pack than anything else. For the last six months an investigation has been made by Commissioner Hansen, Chief Deputy Smith, State Chemist Harms and assistants, in order to discover exactly how much candy really shrinks in order to allow tolerances on the net weight. The candy was placed in a condition ideal for shrinkage and weighed every two weeks. It was learned that the shrinkage is slight and that nearly all had been packed short. Tolerances on this and various other products will be finally established at a board meeting to be held during November.

That a "guilty conscience needs no accuser" is the opinion of deputies of the state food and dairy department, who were recently taking an automobile trip through the country near Salt Lake. The party came suddenly upon a dairyman who was pumping water from a well into a milk can. It was evident that he was only washing the can.

"Could you tell us where Mr. Brown lives?" yelled one of the deputies.

"Who the h—l is watering the milk?" roared back the dairyman.

He was investigated.

SAYS ICE IS A FOOD.

Pure Food Commissioner Yates, of Texas, has recently made a ruling that has caused widespread comment. This is to the effect that ice is a food, and, therefore, comes under the jurisdiction of the Pure Food Department of the State.

The question arose over the right of the food inspectors to examine ice-houses in the State, several ice manufacturers having inquired of the department as to their status in this regard. Before making this ruling, the commissioner put the question up to the Attorney General's department, and gave his decision in accordance with their opinion.



**"Here's a better milk
for all uses"**

Carnation Milk is superior to raw milk
—for cooking and baking and in coffee.
Use it whenever the recipe calls for milk or cream—
in pastries, puddings, soups and gravies. All these good
things you cook with milk will be better if you use

CARNATION MILK

Clean—Sweet—Pure From Contented Cows

Carnation Milk is safe milk—nothing is taken out but
part of the water and nothing is added. In sterilizing
it is heated to a higher degree than ordinary pasteuriza-
tion heat. It comes to you hermetically sealed
against contamination.

Try Carnation Milk today—also ask your grocer, the
Carnation Milkman, for "The Story of Carnation
Quality"—with choice recipes, or write us for it.

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Used in homes where every
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BANANAS.

BY STILLWELL F. MERRILL, ASSISTANT CHEMIST, TENNESSEE FOOD AND DRUGS DEPARTMENT.

One of the most abundant and most important of tropical fruits, for food purposes, is the banana. Practically all the bananas which come into this country are from Central America, the main shipping states being Guatemala and Nicaragua. For transportation purposes bananas must be picked green in order to stand shipping, and they often reach the center of the United States in this stage. They must then be ripened, and this ripening process is often carried out, in some localities, in the most unsanitary and filthy surroundings. They have been found piled or stored in rear rooms or cellars of the sales rooms, blankets being then thrown over them, and the beds thus formed used as sleeping places not only for human beings but also by cats and dogs. Such conditions are illegal under the sanitary food law of Tennessee. When the banana reaches the ordinary yellow tint, familiar to us, it is placed on the market for sale and considered ripe. However, at this stage the fruit is not fully ripe, as all the starches have not been converted into digestible sugars, and this is usually the reason why bananas do not agree with some people, who like them but cannot eat them. The proper stage of ripeness of the banana is reached when the peel has turned brown or tan and has not been broken. If the skin is broken fermentation or souring will have taken place, making the fruit of course unfit for use.

When the banana has ripened until it is brown then all the starches which are indigestible will have been converted to sugars, rendering the fruit not only more healthful but more palatable.

The banana is not only valuable for its peculiar flavor, which is pleasant and sweet, but also has a high nutritive value, and the price is within reach of the poorest man.

In Cuba, where great quantities are grown, the output is consumed by the native population, forming one of the principal foods of the island.

The banana has perhaps less waste than any other fruit, as the whole of the inner portion is edible. Bananas are not only eaten raw, but are also fried, baked and used in various other forms. There are also varieties known as "oronoco" and "colorado," which have a red color, as well as the "indiano," which is a large yellow angular banana with a salmon colored pulp, and which has a rather disagreeable acid flavor.

While the thoroughly ripened banana is the most palatable and digestible, the line must be drawn at those in which fermentation has started. The Tennessee food and drugs law forbids the sale of filthy, decomposed or putrid food and drugs materials, and if a consumer finds on sale bananas which are overripe and fast going down-hill he should notify the nearest inspector of the state food and drugs department.

PECULIAR BREADS OF EURASIA.

Not only do the natives of the Chinese Empire engage extensively in the business of laundering clothes, but also certain kinds of bread are said to pass through an ironing process, particularly a peculiar pith bread, the baking of which is accomplished by means of a hot iron. This bread is made in narrow strips and the material is secured from the fatsia tree. In the "Land of the Cherry Blossom," a bread is made similar in shape to bamboo, from which it takes its name. The Japanese slice this article of food and it is sold in strings.

The manifold use of bread in the Balkans has astonished and amused many travelers in that district. Previous to its use as an article of diet, hard bread, formed in rings, may be used as candle sticks, curtain rings from which to hang tent awnings, or they may be utilized for the interesting game of quoits. This bread is draped in long chains from the shoulders and arms of itinerant vendors who easily dispose of their wares. A Russian cracker, known as the "fit-the-mouth begl," is frequently used by merchants as a means of calculating money, an upper string representing roubles, while a lower string of ten serves for kopeks.

Tourists occasionally mistake the sun-dried bread-sheeting of Central Asia for table cloths and napkins. It is actually prepared in large sheets and made of flour and raisin syrup. It is greatly enjoyed by coffee drinkers, but frequently serves the excellent purpose of shielding Oriental bazaars from the sun when hung up as an awning.—American Miller.

PECANS FOR WAR ORPHANS.

A movement has been inaugurated in Texas to send 1,000,000 quarter-pound boxes of shelled pecan nuts to children of Europe who were made orphans by the war. The consignment will go forward for distribution Christmas.

SALE OF UNDRAWN POULTRY IN NORTH DAKOTA.

For the information of the public the department gives the following as its interpretation of the food laws and their application to the sale of poultry:

1. The Food Law provides: "All weight shall be net, excluding the wrapper or container, and shall be stated in terms of pounds, ounces, * * *"

The weighing of poultry without first drawing, removing the contents of the crop and the head, cannot be considered net weight.

2. The Food Law provides that food is adulterated: "If it consists wholly or in part of diseased, decomposed, filthy or putrid animal or vegetable substance * * *"

Certainly, when poultry is weighed and sold with the intestines and crop unremoved, it consists in part of a decomposed, filthy, or putrid substance, for these products weigh from $\frac{1}{3}$ to more than 1 pound in each individual case.

3. The purchaser is entitled to know what he is called upon to pay for, to be furnished a statement of the weight and price, and he is further entitled to any trimmings removed from the meat after the same has been weighed if he is expected to pay for the same.

4. Under date of Oct. 17th, 1914, the department authorized the prosecution of a local dealer for selling undrawn poultry. The dealer pleaded "not guilty" and the case was set for Tuesday, Oct. 20th, 1914, at which time said dealer changed his pleading to "guilty," and was fined for violation of the Food Laws.

5. Notice is hereby served on all dealers that further violation of the law will be followed by prosecution.

6. To comply with the spirit of the law:

(a) Dealers should sell poultry and all other food products by net weight, excluding wrapping or containers.

(b) Undrawn poultry cannot be legally sold.

(c) Poultry should not be weighed until after being drawn, and the head and crop removed.

(d) The purchaser is entitled to all trimmings removed after the weighing.

(e) The purchaser is entitled to a statement showing the net weight as well as the cost.

The foregoing is given for the guidance of dealers as the interpretation placed upon the Food Law by the Food Commissioner and as accepted in the pleadings by the defendant already referred to.

(Signed) E. F. LADD,
Food Commissioner.

October 27th, 1914.

BIG CROP OF POTATOES.

The total potato crop is placed by the "American Agriculturist" in its October 17 issue at 353,000,000 bushels, a substantial increase over the figures covering the 1913 crop, which are about 317,030,000 bushels. The rate of yield this year was decidedly better than was secured a year ago, and the crop is ample for ordinary domestic use.

Up to October, 1913, foreign potatoes paid 25 cents per bushel duty, now duty free. Official figures covering the twelve months ending June 30, 1913, show that when the new law went into effect nine months earlier 2,500,000 bushels of potatoes came in free of duty. During the fiscal year of 1912, which was under the duty, a shortage of supply brought in that year nearly 14,000,000 bushels.

CELERY-CABBAGE, A NEW VEGETABLE.

The newest vegetable is "celery-cabbage," which has just made its appearance on the American market.

The new vegetable first appeared in Illinois, where it was "Burbanked" by grafting. As its name suggests, the new vegetable is a cross between cabbage and celery.

Like celery, it has long firm stalks, while like cabbage plants, each stalk is fringed with tender leaves. The stalks also roll into a small head at the top, the foliage on top greatly resembling young cabbage. The taste of the new vegetable is that of celery and cabbage combined.

REQUIRES WEIGHT ON BUTTER PACKAGE IN BLACK TYPE.

The City Council of Houston, Tex., acted on the suggestion of Charles Lawrence, sealer of weights and measures, and passed an ordinance requiring that packages of butter have printed on the outside the weight when it is a pound or more in letters $\frac{3}{16}$ th of an inch high. Packages containing less than a pound will have the weight printed in letters one-half inch high. The ordinance went into effect October 1.



YOU are doubly protected when you choose foods that bear the brand of Armour. Every process, at every stage of the making, is under the careful scrutiny of Uncle Sam's inspectors. This is your assurance of purity of product, care and cleanliness in preparation. Careful food buyers recognize in the Armour label our **additional** pledge of superior quality and unvarying goodness.

Present prestige and popularity of Armour's "Simon Pure" Leaf Lard, Armour's Grape Juice, "Star" Hams and Bacon, "Veribest" Food Specialties, etc., are but the natural results of our half century of striving toward perfect food production.



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THE AMERICAN FOOD JOURNAL



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A large, ornate frame containing a portrait of Carl S. Vrooman, a man with a mustache wearing a suit and tie. The frame is decorated with floral motifs and scientific apparatus. To the left of the portrait is a balance scale and a microscope. To the right is a flask on a stand and a book. At the bottom left is the seal of the United States Department of Agriculture, and at the bottom right are several books. The entire composition is set against a background of horizontal stripes.

CARL S. VROOMAN,
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The ownership of The American Food Journal is vested solely in the officers of the company. No person, firm or corporation, either directly or indirectly connected with the business it represents, has any share in its ownership or voice in shaping its policy which has in view at all times the best interests of the field it serves. It aims to discuss all subjects fairly, and to furnish its readers information concerning the progress and development of the food industries. It will answer any questions concerning the business to the best of its ability, and it asks its readers in all parts of the world to aid it with inquiries and suggestions, to which it will give prompt and earnest consideration.

Vol. IX.

DECEMBER, 1914.

Number 12.

Prompt Action Against Foot and Mouth Disease

FOR the first time in fifty years there was, in November, a period of ten days when not a live hoof was to be found in the immense stock yards at Chicago. Practically all of the great packing plants and the business machinery necessary to handle the daily cattle receipts were closed.

That dreadful scourge, the foot and mouth disease, had stalked into the yards and closed the gates of progress.

Too much credit cannot be given to the packers for the masterly and unselfish way in which they co-operated with the federal and state authorities in their effort to stamp out the disease. There was no complaining. There was no effort at temporizing. The packers did the proper thing in the proper spirit. They closed their plants and lent their powerful aid to official effort to keep the gates of the yards closed against further receipts of cattle. They helped kill and bury those cattle that were affected and cleaned up the entire place so that not a germ was left to receive the disease.

All this work was done so quickly and so thoroughly that the business of the yards was resumed after a period of ten days of idleness.

After the yards were reopened a very strict inspection was inaugurated; so strict that it would seem to be impossible for an infected animal to get into the yards.

There has been a very large loss in dollars and cents to the country as well as to individuals as a result of the appearance of this disease. Not only in Chicago but in other parts of the country where the disease has made itself manifest unfortunately there is but one thing to do when foot and mouth disease makes its appearance and that is to destroy immediately all infected cattle and put their carcasses under the ground. It is a costly procedure but it is the only way known by which the disease may be stamped out.

The present outbreak is the sixth epidemic of this

kind we have had in this country and exceeds in area affected any of the five previous outbreaks.

As a result of past experiences both in this country and in Europe, authorities are agreed that the only method of combating the disease is to stop all movement of stock and material that has been subjected to any danger of infection, and to kill off at once all herds in which the disease has gained any hold. This enables the authorities to eradicate affected herds and isolate and hold under observation all suspected herds.

Ten states have been quarantined by the federal authorities. At the same time state authorities are imposing local quarantines which prevent the passage of animals from farms or localities known to be infected to other localities in the same state in which the disease has not appeared. As soon as an infected herd is discovered the animals are killed and buried in a covering of lime. The owner of the slaughtered animals is reimbursed on a basis of the appraised value of the herd. The expense of the entire process of condemnation and disinfection is divided equally between the federal and state governments.

The present outbreak first appeared in southern Michigan. Shipments of diseased hogs from this place to Chicago are believed to be responsible for the infection of the pens in the Union Stock Yards at Chicago. How it spread as far east as Massachusetts and as far west as Iowa it is impossible to tell. Neither can it be told from whence came the germs that infected the stock of southern Michigan.

Fortunately the authorities have the situation well in hand. In a short time no doubt the disease will be stamped out.

According to the specialists of the department of agriculture people need have no fear of eating meat, provided it be thoroughly cooked. The disease is not easily communicated to human beings through food, although milk from a diseased cow might transmit the

disease to a human being. Pasteurization, however, will render milk from infected cows entirely safe.

There need be no meat or milk scare, for all infected herds are destroyed as soon as discovered, and all herds under suspicion are held in quarantine, so that it would be a very difficult matter for either infected meat or milk to find its way to the markets.

According to the department of agriculture the disease when contracted by adults is not at all a serious illness. It commonly takes the form of slight fever, sores in the mouth and a slight eruption on the fingers. In the case of sickly children it might take a more serious form, especially if complicated by other forms of illness.

UNIFORM PURE FOOD LAWS.

ONE of the most pertinent papers relating to pure foods read at the recent convention of the specialty manufacturers was that presented by Dr. T. B. Wagner on uniformity of food laws. This communication was interesting and extremely vital, not because the subject is new, but rather because of the clear, masterly manner in which it was treated. Dr. Wagner made the necessity for greater uniformity so plain it would seem that no food control official of the country can do aught in the matter but help hasten the day when we will have practically but one pure food law for all the people of these United States.

It appears to be rather difficult for some of us to lay aside the antiquated notions of state rights that possess us. It is hard to differentiate between reasonable and necessary affairs of the state and the rights of a people doing business and holding social intercourse as a nation. Some of us are seriously offended when the federal government takes any manner of jurisdiction within the state, not because it is not the best thing to do, but because it is an infringement upon our sacred rights as members of a petty principality and members of a great federation.

No one who believes in the just rights of a state to make laws within certain bounds will look with favor upon offensive interference by the federal government. Neither will right-thinking people object to such federal regulations as will tend to do away with friction between the people of the several states.

We are, after all, one people, and we should have, where it is possible, a single purpose in the making and administration of our laws.

Being widely separated, there are, as we all know, local conditions that must be met by local laws. But except for this we will dwell in a better state of peace under uniform laws.

No one, well advised, asks for a single pure food law that shall prevail in all parts of the country. Such a condition is not possible, since each state has its separate problems to meet. But what everyone has a right to ask is that the states themselves will make uniform laws whenever it is possible to do so. The question of labels puts an unnecessary handicap on manufacturers who have no intention of violating the law. Their rights in the premises are overlooked by lawmakers who appear to be unable to see beyond the borders of their own state. As Dr. Wagner points out in his article, published in another column, manufacturers doing an interstate business must send out an identical product under a great variety of labels.

If those who inspire the state laws would approach the subject from an ethical point of view, bearing in

mind always that we are one people, they would do a greater good to the public as a whole by modifying their radical views.

The difference between the state laws are after all so slight, in most instances, that it would seem an intelligent set of men could find a way to bring them into harmony and thus do away with much of the expense and annoyance which manufacturers, distributors and consumers now suffer.

SUBSCRIPTION PRICE REDUCED.

BEGINNING Jan. 1, the subscription price of the AMERICAN FOOD JOURNAL will be reduced from the long-established sum of \$2.00 to \$1.00 per annum.

Hard times, the bugbear of the Commercial world at the present, has had nothing whatever to do with the change.

On the contrary, Dame Prosperity herself is solely responsible for the departure.

For nine years the AMERICAN FOOD JOURNAL has struggled steadily ahead, until today a point has been reached which permits the publisher to share his profits with the readers; and this he does gladly and freely.

So, prosit—and subscribe!

EFFICIENCY IN PUBLIC SERVICE.

THE efficiency committee of the State of Illinois has been laboring faithfully for quite a period, among the various commissions of the state, with the purpose of devising a more economical and effective plan than now prevails of doing the public business of the state.

Of course the committee took a look into the affairs of the pure food department, and in its report had something to say about the conduct of the office, recommending finally that this department be consolidated with the state health department. This was in line with recommendations concerning other departments, the one idea being to run the affairs of the state on a more economical basis.

So far as the earnestness and integrity of the efficiency committee is concerned, there is no room for discussion, but it is pertinent to inquire how the members of such a committee could familiarize themselves with the detail of many of the departments they purpose to improve. In a general way they might know much of the workings of a pure food department, for example, but such a cursory glance as they might, in their official capacity, be able to give it would likely warrant them in making such a radical recommendation as to advise the doing away with a commission.

The idea of the efficiency committee appears to be that the management of the pure food department of the state might as well be done by the state health commissioner, because he has time for the superintending of this work and because of his scientific knowledge is peculiarly fitted for such a duty.

It would be little short of a calamity to merge these two offices into one, chiefly because, contrary to the general belief, an academic health officer is peculiarly unfitted to manage a state food department. The ultra pure food man, such as a scientific man is likely to be, is a burden upon the people. He lives so much in the exclusiveness of his profession he loses sight of the rights of the larger majority he does not know, nor does not care to know.

The conduct of a pure food department of a great state is not simply a matter of arresting people who violate the pure food laws. There are larger interests to be fairly considered, to the end that the people may have pure food at the least possible cost of friction among all interests concerned.

Experience has taught that a level-headed layman with a good business knowledge makes the best kind of a pure food commissioner. He may have all the scientists on his staff that may be necessary for the conduct of the department. But finally the vital questions that come up from day to day must be disposed of by a man of broad judgment, and not by some one with a narrow point of view.

Perhaps some of our pure food commissioners regard their office as a political snap which should not require but a small portion of their time, relying upon their assistants to conduct the office.

Where such evil exists it may easily be corrected, without destroying the efficiency of the department. Pure food commissioners who draw a good salary should render the state a suitable service. They should be on the job all of the time, and not merely pose as the head of an organization they do not manage in fact.

The efficiency committee might render the state a good service by urging a rule compelling a reasonable service for a good compensation. So far the committee might be competent to go. But the members of this committee are really not wise enough to rearrange important departments at a mere glance.

SPECIALTY MANUFACTURERS.

FOR six years past the specialty manufacturers of the country have been meeting in annual convention, for the purpose of bettering their condition by working in harmony so far as possible. Evils that crept into the competition business of manufacturing food products represented a loss. No one was benefited by the friction that was created in business. To do away with this and to further develop a condition of mutual benefits was and still is the function of the organization.

So far the association has achieved a measure of success. It has held its annual conventions; members have become intimately acquainted and like reasonable men who know that honesty is the best policy, they have made agreements that they have kept. And as a result the business of manufacturing food products has been bettered.

But there is a future for this organization that it has not quite anticipated. There is a conservatism in the organization that appears to be holding it back. Individual members see very clearly the field that should be occupied, but the great body of the members appear to be fearful of going forward.

The recent convention held at Philadelphia was one of the best the association has ever held. There is no doubt but what much good will come out of it, still the spirit of conservatism was pronounced. The fear to do was altogether too strong.

It is not necessary here to enumerate the many things that the manufacturers' association as a combined force should do for its individual members. The necessity for doing many things is generally known, and it is also known what these things are.

What the Specialty Manufacturers' Association lacks more than anything else is the courage of its

convictions. It knows what to do but a conservative force in the organization stands as a check against necessary action. A little healthy radicalism is much needed.

IMPORTED FOOD PRODUCTS.

SOME of our worthy citizens who have a fondness for the delicatessen variety of food will have cause to complain of the European war's interference with their meals. But there will be compensations. Other varieties of imported food products will be as plentiful and cheap as the delicatessen stuff will be scarce and dear.

Coffee and tea, which figure so largely among the things that go to make up the staff of life, are likely to be cheaper as the result of the war.

Brazil, where more than eighty per cent of our coffee is grown, will be practically shut off from its German and Austrian trade. It will force the Brazilians to push their coffee on our market at a reduction in price. It may play havoc with the Brazilian coffee planters, but it will make it possible for Americans to drink coffee at a lower price.

Coffee drinkers who will be able to buy coffee at a lower price will not waste much sympathy on the Brazilian coffee dealers, because they have not forgotten the vicious colonization scheme that boosted coffee until it was doubled in price. Cheap coffee we are not likely to get, but cheaper coffee than we have known in recent years appears to be a certainty.

England has cut off quite a big slice of the world from its tea supply. India, China and Japan will have to look largely to America, England and Russia for a tea market. With a great part of the world cut off from the supply, prices are likely to be lower than they have been for years.

We can get along pretty well without much of the fancy food products we have been getting from abroad. But coffee and tea are rather in the list of necessities. It is therefore well that the warriors of Europe are not to shoot up the price of these articles.

On the whole, we are likely to get much the best of it in the matter of food stuff exchanges. Much that we actually need from abroad we will be able to buy at a low price, while for our own food products we are going to get a good price.

THE PASSING OF WINTON.

WITH genuine regret, the AMERICAN FOOD JOURNAL learns of the resignation of Dr. Andrew L. Winton from the service of the Bureau of Chemistry. At the time of his resignation, Dr. Winton was holding a position as research chemist, located in Washington, but he will best be remembered as head of the laboratory of the Bureau of Chemistry in Chicago. Whether distaste for research work after so many years of routine and clerical work in Chicago was the impelling motive for the resignation we are not informed.

When Dr. Winton left Chicago, he was keenly missed, not only in food circles, but from the social and business world. In the inner circles of the Chicago University Club, where his select little dinners with a congenial coterie of admiring and deserving friends, it is rumored, lured Epicurus from retreat, there was regret at his departure. In business circles, also, Dr. Winton was a familiar figure, and his informing comment was listened to with respect. In

short, the doctor is a many-sided man, of great talent and dynamic energy.

It is understood that Dr. Winton has retired from active work and will in the future confine himself to research of a private character, the pursuit of which his ample means and fine mental and bodily equipment almost guarantee to be profitable. It may well be that at some future date, Dr. Winton will yet announce to the grateful scientific world some discovery of note. Certainly it is to be hoped so, but, be that as it may, the AMERICAN FOOD JOURNAL wishes him well, and trusts that in his peaceful seclusion in New Haven, engrossed with his family and his personal affairs, he may find that peace of mind, and bodily rest which is so seldom found either in official life, or in the mad whirl of speculative endeavor in the business world.

IOWA LOSES CHITTICK.

DURING the month, W. B. Barney, Dairy and Food Commissioner of the state of Iowa, announced the resignation of Dr. J. R. Chittick, state chemist and state sealer of weights and measures for the state of Iowa, to take effect on December 31, 1914. In a published statement, Commissioner Bar-



DR. J. R. CHITTICK.

ney regretted the loss of Dr. Chittick as head of the chemical force employed in the enforcement of the Food and Drugs Act, and deplored the fact that the salaries paid by the state were too small to retain the services of able professional men like Dr. Chittick.

Dr. Chittick has been connected with the food and drug work of Iowa since it was inaugurated in 1906. He had charge of the building and equipment of the

state laboratories at Des Moines, and has made for himself an enviable reputation as an energetic and competent food chemist. Before accepting the position as state chemist of Iowa, Dr. Chittick was associate professor of chemistry in one of the prominent pharmaceutical colleges of the country. He has been very popular with the food and drug control officials of other states and for the past two years has been president of the Association of Official Food and Drug Chemists, and presided at the last meeting, held at Portland, Maine.

He is the author of numerous articles on food and drug control methods, and in his capacity as state chemist of Iowa has had charge of the chemical end of the enforcement of thirteen different laws. In addition, as state chemist, he has made the analyses for the state board of pharmacy commissioners, and state board of control, the state executive council, the attorney general, and county attorneys.

Dr. Chittick has resigned to accept the position of chief chemist for the Jaques Manufacturing Company, the manufacturers of K. C. Baking Powder. He comes to that company on January 1, 1915, and will at once build and fully equip for them a modern chemical laboratory which will be fitted with apparatus and equipment designed to care not only for routine chemical work, but for research work as well. He will have a free hand in the chemical work, which he will supervise for the Jaques Manufacturing Company, and will not only test the purity of all baking powder ingredients purchased by that company, but will also make exhaustive tests of the finished product. It is the proud boast of manufacturers of K. C. Baking Powder that "it is legal in every state in the Union, every day in the year." Heretofore the chemical work of the company has been performed by the various commercial laboratories throughout the country, but the great growth of the business has made it necessary at this time for the company to install its own laboratory, and to secure as its head one of the foremost food control chemists of the United States, who will devote all of his time to the company by which he is employed.

The laboratory is being constructed under the supervision of Dr. Chittick, whose experience gained in the installation of the laboratories of the state of Iowa, eminently fits him to guide the construction of a modern chemical laboratory. The interior construction of the laboratory will be in white with tile walls, tile tables, and Alberine stone wherever it can be used to advantage, electric ovens, modern hoods, dark rooms, etc., and all of the paraphernalia which goes to the outfitting of a modern laboratory of the best sort.

Dr. Chittick plans to conduct extensive research work regarding baking powder materials, processes of manufacture, etc., and no doubt the Jaques Manufacturing Company will benefit by his thoroughgoing investigations.

VALUABLE PREMIUMS.

AN EXCEEDINGLY valuable premium is now being offered to subscribers of the AMERICAN FOOD JOURNAL. The article consists of a beautiful aluminum combination cooker, which is composed of seven different utensils—making it, in fact, a 7-in-1 cooker. On another page of this issue will be found an advertisement giving descriptive matter on the subject, which readers of this paper will note with profit.

Present Status of the Adulteration and Misbranding of Foods and Drugs

BY LEON A. CONGDON, B. S., CHIEF OF FOOD AND DRUGS, KANSAS STATE BOARD OF HEALTH, TOPEKA, KANSAS

THE proper preparation of food and drug products has long ceased to be carried on by haphazard-rule-of-thumb methods that formerly prevailed. Skilled chemists are employed in most of the large food and drug establishments. We do not find crudely adulterated and misbranded food and drug products as formerly prevailed when the Pure Food and Drug Act went into effect, or even a few years later.

In order to understand the meaning of the terms "Adulterated" and "Misbranding" we may define these terms as generally accepted by most of the State Food Laws and adopted in part by the National Pure Food and Drug Act:

Adulteration of food may be defined, in general, as follows:

1st. If anything has been mixed with it to reduce or lower its quality or strength.

2nd. If anything inferior or cheaper has been substituted wholly or in part therefor.

3rd. If any valuable constituent has been abstracted wholly or in part therefrom.

4th. If it consists wholly or in part of a diseased, decomposed or putrid animal or vegetable substance.

5th. If by coloring, coating or otherwise it is made to appear better or of greater value than it really is.

6th. If it contain any added poisonous ingredient.

Misbranding of food may be defined as follows:

1st. If the food package contain any untrue or misleading statement or design on the label.

2nd. If the nature of the contents is left off the label.

3rd. If the name and address of the manufacturer is left off the principal label.

4th. If the incorrect statement of the weight of measure is given on the label.

5th. If extravagant or untrue claims as to nutritive value are given on the label.

Some food products are rarely adulterated. We may mention fresh fruit, common sugar, cereals, fresh meats, fresh vegetables, although we quite frequently find that products such as meat, fruit and vegetables consisting wholly or in part in a diseased, decomposed or putrid condition, and hence would, under the term adulteration, be classed as adulterated.

Years ago our ground spices were mixed with ground olive pits, ground English walnut shells, ground cocoanut shells, spruce sawdust, ground date stones, linseed meal, etc., but such sophistications are rarely practiced nowadays. At present we sometimes find a manufacturer abstracting the essential oils from spices and replacing the oils in the spices with a synthetic product; but the grosser adulterations, as above mentioned, are rare.

Ground coffee used to be much adulterated with ground roasted cereals, ground roasted peas and beans and chicory. Java-Mocha blends so much in evidence in the cruder misbranding is in most cases a thing of the past. Our present adulteration of coffee is the glazing of inferior coffee beans with sugar, glycerin and glucose and other mixtures to make the coffee bean appear of greater value. We have also the mixing of small, so-called male berry of the coffee with the coffees of higher quality.

Cereals, such as compound graham flour, unmarked, bleached wheat flour; the mixing of cheaper grades of wheat flour are occasionally found at present. Some of the cereals, such as polished and coated rice, such polishing and coating to cover up an inferior article, are to some extent found today.

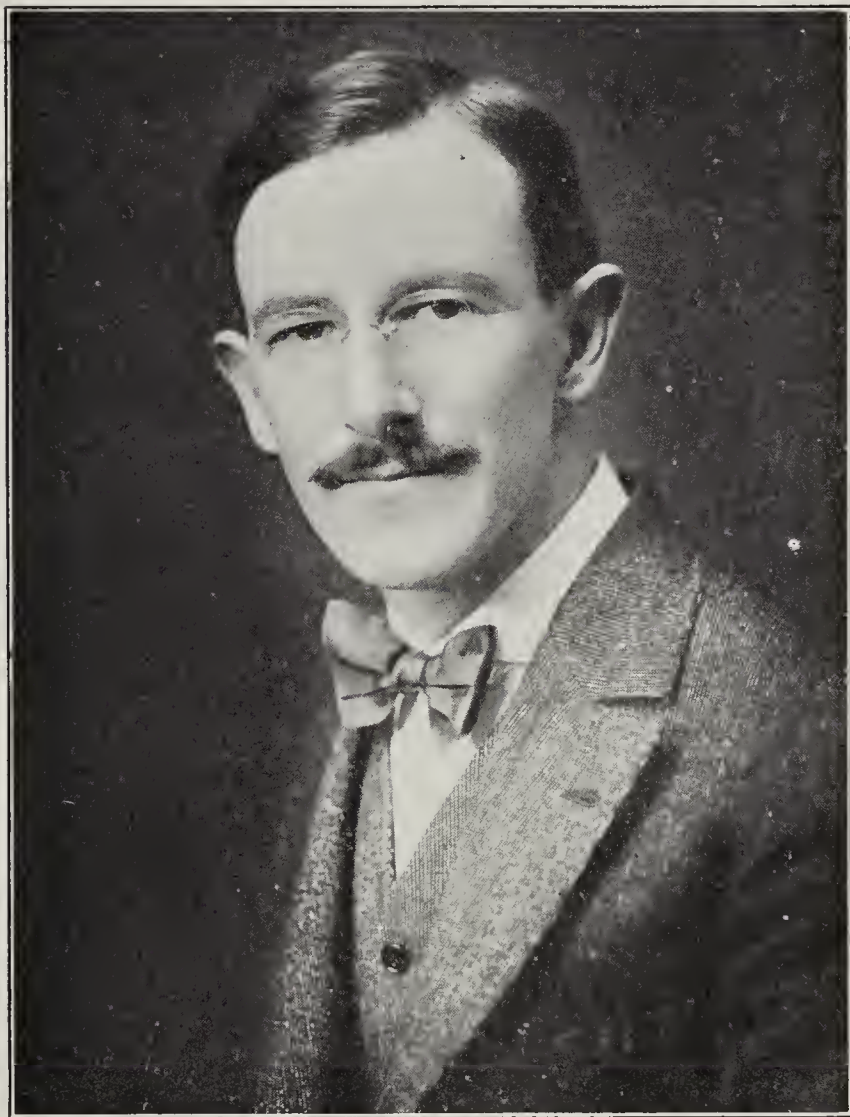
The canned vegetables and fruits are at present very little adulterated, but are in a great number of cases found misbranded. For instance, a second grade of canned article is quite often labeled first quality, or extra standard quality. We might mention a practice of taking swelled or bulged canned goods and reprocessing them, which would be classed as an adulteration in that they are constituted to a certain extent of a decomposed vegetable substance and most often contain in solution tin, which was dissolved by acids formed in the process of decomposition.

Bottled goods, such as catsup, etc., are being put up by reputable firms without the addition of preservatives, since science teaches us that, properly sterilized, clean products can be produced without added preservatives. We occasionally

find some bottled goods, such as catsup, filled with a large number of bacteria, yeasts and molds, due to decomposed material and careless methods of handling. In such goods a preservative is sometimes added.

Milk and its products, such as butter and cheese, are serious problems with which the food officials have to deal. Milk and its adulteration should be a problem left primarily with the municipality to enforce; but it is the duty of the State and National Food Officials to educate the milk dealer in the proper handling of such a product to keep it free from pathogenic or disease-producing organisms and to establish sane standards which are practical. The problem of pure milk production seems to be its proper handling and the proper sanitation of the milk-producing and selling establishments.

Vinegar is a product which is at present much adulterated and misbranded. Sophistication of vinegar is a problem with



LEON A. CONGDON, B. S.

which the food chemist is confronted, because vinegar manufacturers and their chemists do put out vinegars which are difficult to prove adulterated.

Flavoring extracts and their substitutes are problems of misbranding in that the nature of the contents is left off the principal label.

Edible oils, such as olive oil, are quite often adulterated with cottonseed oil, peanut oil or sesame oil. These are sometimes added because they are cheaper. As a rule the low grade olive oils are most subject to adulteration, by reason of the fact that it hardly pays to destroy or even modify the fine quality or delicacy possessed by a first-class olive oil.

Eggs are quite often adulterated during the hot season in that they consist wholly or in part of a decomposed substance. Like milk, eggs are a problem to be left to the municipalities to some extent, but state and national authorities should educate the egg handler and the farmer in the proper handling

of such products. It is a well-known fact that non-fertile eggs keep longer and better than the fertilized ones. After the breeding season is over roosters should be separated from the hens, thus insuring non-fertile eggs for the market.

The question of cold-storage eggs is a matter of proper branding both as to the marking of the time the eggs went into storage and the time the eggs went out of storage.

Preserves and jellies are quite often adulterated in that glucose is substituted wholly or in part for the original product and misbranded in that glucose is not correctly stated on the label. Certain manufacturers adulterate pure fruit jellies with a base of apple jelly.

Baking powder is a live question in food control today. We have baking powders on the market while primarily within the letter of the law are *not* within the spirit of the law, in that false claims in their advertising matter tend to deceive the purchaser.

Such frauds and fakes will only be abolished when we have both national and state false advertising laws enacted.

DRUGS.

Drugs may be deemed to be *adulterated*:

1st. If, when a drug is sold or dispensed by a name recognized in the United States Pharmacopœia or National Formulary, it differs in composition or standard of strength, quality or purity from that recognized by the United States Pharmacopœia or National Formulary official at the time of sale.

2nd. If its strength or purity falls below the professed standard or quality under which it is sold.

Drugs may be deemed to be *misbranded* if the container or label of which shall bear any statement, design or device regarding such article or substance contained therein which would be false or misleading in any particular.

1st. If it be an imitation of, or offered for sale under the name of another article.

2nd. If the contents of the package as originally put up should have been removed in whole or in part and other contents of the package shall have been placed in such package.

3rd. If the package failed to bear a statement on the label of the quantity or proportion of any alcohol, morphine, opium, cocaine, heroin, alpha- or beta-eucaine, chloroform, cannabis indica, chloral hydrate, phenacetin, acetanilid, or any derivative or preparation of any such substance contained therein; provided, that drugs and medicines dispensed by or on the order of a physician's prescription, or in accordance with a formula submitted by the purchaser and intended for immediate or temporary use, need not bear any statement on the package as to its contents, when labeled with directions for use.

One of the common practices of the older days in drug adulterations was using a poisonous "wood" or methyl alcohol in place of the common or ethyl alcohol. But it seems that now this practice is very rare.

The practice of most druggists in making up their standardized tinctures from fluid extracts is also soon losing ground, because series of analysis of tinctures made from the fluid extracts by the retail druggists show that nine cases out of ten a standard tincture cannot be made from a fluid extract by the retail druggist. The retail druggist of repute is now buying his standardized tinctures from wholesale drug houses, who put same in small containers and who accurately standardize their tinctures by physiological tests on animals.

The old practice of throwing a few drugs together and filling the bottle up with water and alcohol to make such liquid preparations as the United States Pharmacopœia or National Formulary exacted has passed. Druggists, both wholesale or retail, are carefully compounding their drugs as nearly as possible to the exact requirements of the U. S. P. and National Formulary. Occasionally we find a careless druggist or an incompetent one. The problem of deteriorated and substituted drugs has not been entirely solved, but time will bring a few unscrupulous druggists selling such goods in line with the reputable druggists.

One of the greatest problems in drug control is the patent medicine business. An authority on the subject, who has recently analyzed a large number of products on the market, divides this class of medicines into three groups:

1st. An exceedingly small number of proprietaries, representing well known formulas, which are sometimes of value in the home medication of the simpler diseases in the absence of a physician. As a class this type constitutes a minority so small as to be practically negligible when compared with the number of so-called remedies and cures upon the market.

2nd. A much larger number of preparations which contain injurious drugs or drugs which in some cases may have a deleterious effect.

3rd. A constantly increased number of patents and proprietaries whose medicinal effect is practically nil, yet the advertisers claim for them the most wonderful properties for the cure or relief of disease.

In giving this resume of the food and drug adulteration and misbranding, it is not my purpose to cover the whole realm of adulteration and misbranding of food and drug products, but to put the problem in its true light by giving various instances and examples of a few of the recent problems on this subject.

Space will not allow me to go into any further detail. It must be borne in mind that the real problem of manufactured foods and drugs is the misbranding. Always read the label carefully. Note what you are buying and if, upon reading the label, it is an imitation and does not give the name of a product for which you asked, don't buy it but go where they keep the genuine article.

In food control besides these problems of misbranding and adulteration, we have the problem of proper sanitation of food and drug establishments. Sanitation, or the keeping of the business in a cleanly manner, is of prime importance to both the manufacturer and retailer and the consumer.

The day is not far distant when the manufacturer who puts out a cleanly product from a clean factory will obtain the greater bulk of the business. Likewise the retailer who has a clean, up-to-date and sanitary place of business will put the insanitary merchant out of business.

NORTHWESTERN DAIRY OFFICIALS MEET.

A very satisfactory meeting of the Northwestern Dairy Officials' Association was held at the Sherman House in Chicago Oct. 20th, 1914. The attendance was good even though the National Dairy Show which was in progress at that time furnished many counter attractions. The name of this association was changed to the Conference of Dairy Officials. Prof. Larson of South Dakota was elected president and E. G. Bennett of Carthage, Missouri, Secretary. It was clearly shown at this meeting that there is much in common to be done for the dairy industry and that through combining the efforts of the state dairy officials it is believed much can be accomplished in the way of establishing standards and recommending such legislation as will prove beneficial to those we serve.

Probably no subject was more generally discussed at the many meetings that were held by the different associations and organizations throughout the week than that of cream grading, as it was generally agreed that its solution was of the utmost importance to the welfare of the dairy industry. On account of the meeting of the Dairy Officials coming on Tuesday, too early in the week to get the results of the many discussions on cream grading, it was decided not to offer any definite solution of this question at that time. It was decided, however, to gather all the information possible pertaining to this and other dairy subjects during the week and have a conference, subject to the call of the president a few weeks prior to the convening of the next legislature.

A meeting of Creamerymen from Missouri, Kansas, Oklahoma and Nebraska was held in Kansas City, Nov. 19th, for the purpose of taking up the question of cream grading and other matters of interest to creamerymen. A committee of five was appointed at this meeting, with instructions to agree on some plan of standardization regarding cream grading and to ask that the dairy officials consider any new or amended legislation they might submit. This committee was also instructed to meet in Des Moines, Iowa, on Dec. 11th, that they might be able to explain their views in person.

IN CHARGE OF CULINARY DEPARTMENT.

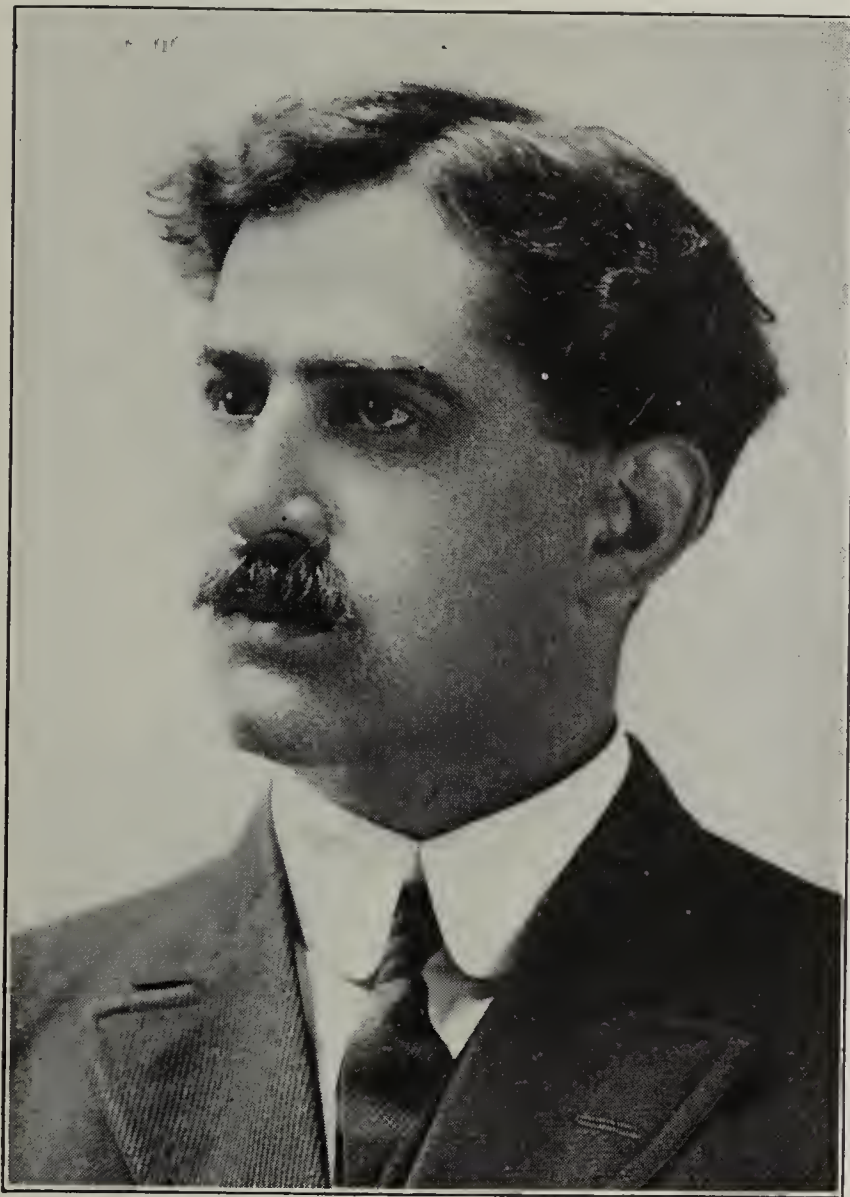
Mrs. Frances M. Holroyd of Kansas City, the culinary expert who will have charge of that department for the Young Women's Christian Association at the Panama-Pacific International Exposition, will arrive in San Francisco about December 15 and will proceed to equip and outfit, most completely, dining rooms, banquet room, cafeteria and kitchens. The entire second floor of the building, which was designed by Miss Julia Morgan, architect, will be equipped with dining rooms which will seat five hundred and fifty people at one time. The kitchens will be on the top floor, as will be also a small party room, or banquet room, for the use of assemblies. Apparently this will be in constant requisition, for the membership throughout the eighteen countries where the work is organized numbers more than six hundred thousand, and systematic preparation for the exposition participation has been going on for three years.

Agricultural Chemists in Annual Convention

THE thirty-first convention of the Association of Official Agricultural Chemists was held in Washington, D. C., in the Banquet Hall of the Raleigh Hotel, November 16 to 18.

About 350 members and visitors were present at the sessions. Some very fine papers were read and many matters of importance discussed. The publication of an official journal was a much discussed project. A series of questions were sent out prior to the meeting to obtain viewpoints of various chemists on the subject. Of fifty letters mailed, twenty-five replies were received, some favoring the publication of an official chemists' journal, while others disapproved the idea on account of the expense. President Ladd, who discussed the matter in his address said:

"Five replies only were strongly in favor of publishing a journal. Twelve believed the association should publish an



DR. CARL L. ALSBERG.

annual report of its proceedings. It is thus observed that but few are favorable to publishing a journal, chiefly on the ground of expense, and for the further reason that there are already a large number of chemical journals available. It should be borne in mind, however, that there is no definite publication devoting its attention to the particular field of work which this association represents. Several of the chemists were strongly in favor of again urging the Department of Agriculture to publish the proceedings, as in the past, since the work is largely of an official character, and must be the basis for analytical work in connection with the enforcement of food and drug laws, both state and federal.

"On the other hand, there are those who are equally strong in favor of the publication of a journal quarterly, to include the proceedings of the association, and admit that there are many financial difficulties in the establishment and maintenance of a new journal, but believe that the labors of the agricultural chemists will justify the establishment of such a journal."

After considerable discussion it was decided to publish an

official journal quarterly, the arrangements are to be handled by a committee appointed by the chair.

A very important matter considered by the association was that of extending membership to Analytical Chemists connected with municipal laboratories. The constitution prior to this change relating to membership reads:

Sec. 2. Analytical chemists connected with the United States Department of Agriculture, or with any State, provincial or national agricultural experiment station or agricultural college, or with any state, provincial, or national institution or body in North America charged with official control of the materials named in section 1, which provides: "The objects of the association to be (1) to secure uniformity and accuracy in the methods, results, and modes of statement of analysis of fertilizers, soils, cattle food, dairy products, human foods, medicinal plants, drugs, and other materials connected with agricultural industry; (2) to afford opportunity for the discussion of matters of interest to agricultural chemists," shall alone be eligible to membership; and one such representative for each of these institutions or boards, when properly accredited, shall be entitled to enter motions or vote in the association. Only such chemists as are connected with institutions exercising official fertilizer control shall vote on questions involving methods of analyzing fertilizers or involving definitions, nomenclature, laws, or regulations relating to fertilizers. Only such chemists as are connected with institutions exercising official cattle food control shall vote on questions involving methods of analyzing cattle foods or involving nomenclature, definitions, laws, or regulations relating to cattle foods. Only such chemists as are connected with institutions exercising official food or drug control shall vote on questions involving methods of analyzing food or drugs or involving nomenclature, definitions, laws, or regulations relating to food or drugs. All persons eligible to membership shall become members ex-officio and shall be allowed the privileges of membership at any meeting of the association after presenting proper credentials. All members of the association who lose their right to such membership by retiring from positions indicated as requisite for membership shall be entitled to become honorary members and to have all privileges of membership save the right to hold office and vote. All analytical chemists and others interested in the objects of the association may attend its meetings and take part in its discussions, but shall not be entitled to enter motions or vote.

This section is amended so that analytical chemists connected with municipal laboratories that perform work upon any of the subjects specified in paragraph one of the Constitution, shall be entitled ex-officio to associate membership with the privilege of discussion, but without those of entering motions, voting or becoming eligible for office.

The President's address, which was made a special order of business is herewith published in full:

For the thirty-first time we, as members of this association, are gathered together to carry forward the work started by that little group of chemists who organized the association nearly a third of a century ago. Even though possessed of prophetic vision, little could they have realized the great benefits that would grow out from their modest beginnings, and the vast amount that would be accomplished in promoting agricultural chemistry in this country, or how far-reaching would be the influence of the work of this association. The methods that have been developed and approved during these years have not only come to be generally recognized as official in American work and so accepted by the courts, but they are generally known and used in European countries. And yet there remains before the association a great field rich for the harvest, and chemists are anxiously awaiting the information.

The regulatory work demanding the attention of the chemists, coming through the enactment of new laws, has made a demand for more exact analytical methods in many fields of activity. Where we had formerly the Fertilizer Law, then the Feeding Stuffs Law, we now have the Food Law, the Drug Law, the Insecticide and Fungicide Laws, Sanitary Laws, and, moving rapidly towards us, is the perplexing work with paints, varnishes, textile fabrics and scores of other products that the official chemist must be prepared to handle. In many of these fields we shall need to call for aid upon the physical chemist, the biological chemist, the micro-chemist, the toxicologist, the physiologist, the bacteriologist, in fact, upon

the whole realm of science, to bring to bear their skill and knowledge in solving the problems of the people and to hold up the prestige that is ours as workers in this great field now spread out before us.

The splendid work which has been done in the past and the commanding position for our association and its workers has been made possible by the generous aid of the Bureau of Chemistry in all of our undertakings, and, to a great degree, because in the past of the publishing, by the Secretary of Agriculture, of our proceedings as well as the methods of analysis, as now given in Bulletin No. 107, Revised. Our work can never end, for each year presents us new problems to be solved, new investigations to be undertaken, new lines of research to be developed, and this calls also for new and improved methods of analysis in the great field of agriculture, as well as in the official regulatory work for protecting the public health and in the prevention of fraud and deception. The work of this association has gained a place because the information resulting from these gatherings has been placed in an available form before the public for the use of our chemists. It is most unfortunate, therefore, that the Department of Agriculture has, by legal restrictions, been unable to continue the publishing of these important proceedings, and especially so since the methods approved by the association are now generally recognized as official under both state and federal regulatory laws, and at a time when we, as official chemists, need all the chemical information possible to be secured to aid us in preparing for our official duties.

As you are aware, the proceedings for the past year have not been published for lack of funds, and, since satisfactory arrangements therefor have not been perfected with any of the large publishing houses, it is vitally important that some means be found for a prompt publishing of the work of the association if we would continue to make progress, as it is most essential at this time.

A series of questions was sent out to a number of chemists to get their viewpoint, and the three questions propounded on this point were:

1. How shall the proceedings of our association be published and made available for the general use of chemists?
2. Should the association attempt to publish a journal to include the proceedings and methods of analysis?
3. If an association journal be published, should it attempt to care for other than official matters of the association, or should it include articles of interest to members of the association, including editorial matter of general interest?

Fifty letters were sent out, to which have been twenty-five replies. I can only in general terms analyze the statements made by the several writers without giving due credit to the authors in each instance.

Five only were strongly in favor of publishing a journal. Twelve believed the association should publish an annual report of its proceedings. It is thus observed that but few are favorable to publishing a journal, chiefly on the ground of expense, and for the further reason that there are already a large number of chemical journals available. It should be borne in mind, however, that there is no definite publication devoting its attention to the particular field of work which this association represents. Several of the chemists were strongly in favor of again urging the Department of Agriculture to publish the proceedings, as in the past, since the work is largely of an official character and must be the basis for analytical work in connection with the enforcement of food and drug laws, both state and federal.

On the other hand, there are those who are equally strong in favor of the publication of a journal quarterly, to include the proceedings of the association, and admit that there are many financial difficulties in the establishment and maintenance of a new journal, but believe that the labors of the agricultural chemist will justify the establishment of such a journal.

Says Dr. Frear:

"The Association of Official Agricultural Chemists is probably the most broadly representative organization comprising the interests of Agricultural chemists. Considering the volume of its present labors, I should not think it wise to enlarge the scope or program of its meeting, but I do not see why that should limit the scope of its journal to purely official subjects. As a matter of strategy, I would suggest that the proceedings of the Association appear in sections, separately paged, and added as a supplement to the journal, and that the proceedings be distributed through the numbers of the journal in such a way as to promote its circulation among the various laboratories of the country, whose chemists need to keep acquainted with the changes in official methods and the

reasons therefor. A separate pagination in this way would permit of its binding into a separate volume."

Says Dr. Fraps:

"The proceedings should be published either as a single publication or in periodical issues. It does not appear to me that the subject matter lends itself readily to periodical treatment, but would better appear as a single publication."

Dr. Alsberg, who has been acting for the committee appointed at the last association meeting to examine into the matter of publishing the proceedings, says:

"On the whole, it seems to me that the reports have not been very encouraging. Personally, I feel that the journal could serve a valuable purpose in three ways: First, by printing a lot of material in the way of data and analyses which are unavailable to food, drug and feed control officials, and which are more in the nature of statistics, and, therefore, not available for publication in ordinary research journals; second, by the stimulus it will give to scientific research."

Analyzing the data as gathered thus far by Dr. Alsberg, it would appear that there are 98 subscriptions promised and 20 probable subscriptions, or a total of 118 subscriptions. This is hardly a sufficient guarantee to warrant one in proceeding with the publication of the journal. The matter is, therefore, at this time placed squarely before the association as to what steps shall be taken with regard to the publication of the proceedings of this association. Shall the association attempt the publication of its proceedings in pamphlet form, to be furnished to the members of the association and sold to those interested in the work, or shall the association take steps looking toward the publication of a journal or periodical, say quarterly, and thus be able to avail itself of the postal rates, at the same time furnishing a medium for the publication of a vast amount of information of great importance to the agricultural and food chemists, and in this way stimulating research work in agricultural and food chemistry? For example, like the Analyst of London for the food work, and supplements each quarter to contain the proceedings and revised methods of analysis, or after the fashion of the Zeitschrift fur Analytische Chemie? In either case, how can we finance this undertaking so as to ensure success?

As an association we cannot afford to neglect publishing our proceedings, but it does seem to me that we may well edit out a portion of the material in the published proceedings and summarize more fully the data.

Many think too much time is given to hearing the report of the referees, and not enough to the discussion of results or to the methods which are proposed for the use of the association.

Prof. Christensen of New Mexico thinks it would be far better, instead of publishing a new journal, to try to affiliate with the American Chemical Society in such a way that some one of the journals of that society would create a section on agricultural chemistry, to be devoted to articles bearing on the various phases of agricultural chemistry and such other matters as may be of special interest to the Association of Official Agricultural Chemists.

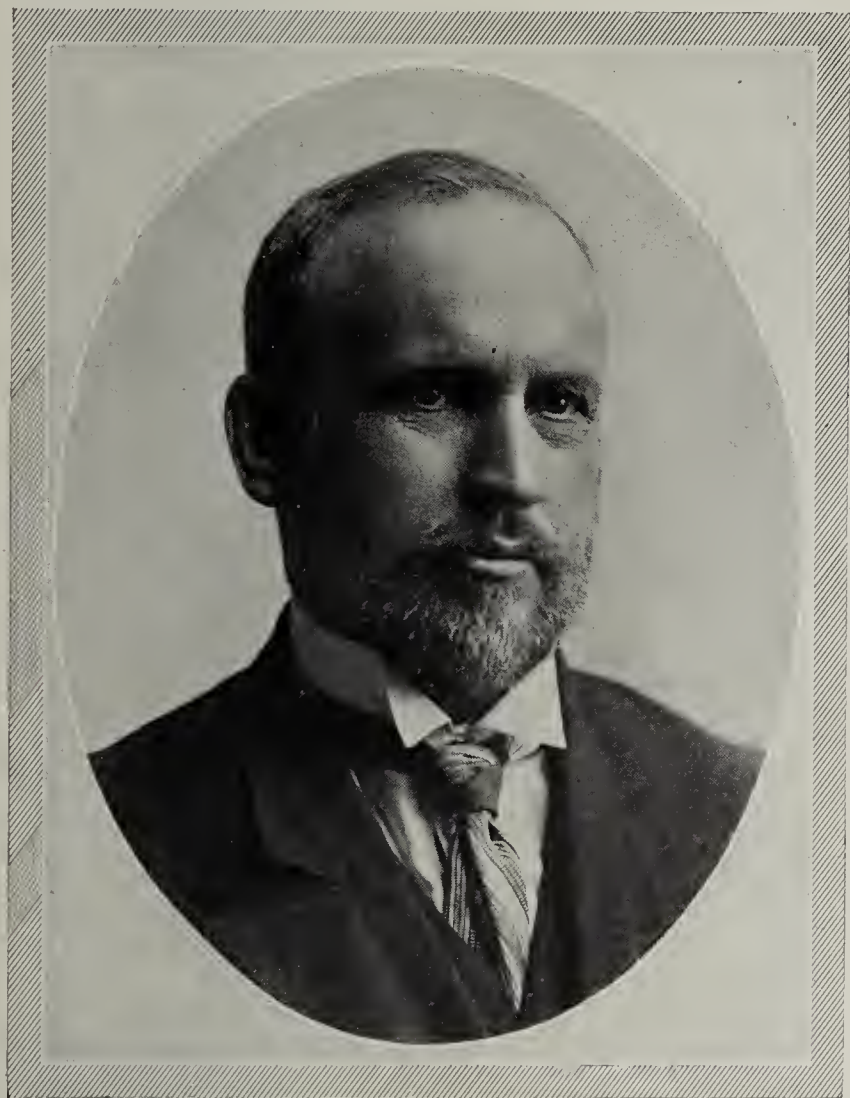
Undoubtedly Dr. Alsberg will be able to present to you some further information with regard to the possibilities of publishing the proceedings of this association.

REFeree AND COLLABORATIVE WORK.

With the vast number of research problems confronting the members of this association, the question is raised as to how we shall secure the best possible results in a reasonable length of time. There are those who have thought that some improvement might be made in handling the vast amount of work now in the hands of the referees. Some have felt that too much time at the association meetings is taken up in the presentation of formal reports and the immense amount of detailed analytical data quite impossible for the hearer to follow; that not enough time is given to the discussion of important matters before the association. If this be true, how we shall remedy it is a perplexing question, and it is my purpose to point out some of the opinions expressed by our members in order that the matter may be brought more directly to your attention, trusting in this way that we may be able to find a remedy.

None seems to think it desirable to discontinue our present methods, especially the sending out of samples to try out methods, but the chief point seems to be that too large a field of work is assigned, and that by restricting the work to a narrower field or to a single problem more could be accomplished. Again, not enough interest is taken in many of the laboratories, my own included, to accomplish what should be done in collaborative work. The least experienced—in reality, apprentices—too often are entrusted with the analytical work of trying out the methods, because our laboratories are over-

crowded and so render it practically impossible for the better trained men to do work of this kind. So the work is slow and, at times, possibly methods have been condemned because there has not been a fair try-out by well-trained chemists. Can we not accomplish more by having two types of work? Let chemists be appointed individually, or in group committees of three, as may seem most desirable, chemists who are known to be interested in certain fields, to take up the necessary research questions and to develop methods; and, when this much has been accomplished, turn the matter over to the referees, that the methods may be tried out by a few select workers in the same field before the testing-out process begins by sending out samples. By this method it seems to me that a half dozen research problems could be attacked by different workers, where we now have only one. Methods could be developed which would be far more satisfactory and the work done much more rapidly than by the present system. Let us not, however, lose any of the essential benefits arising from the splendid line we have already adopted. As illustrating the views of different chemists, I quote from their statements. Says one:



PROFESSOR E. F. LADD.

"The only criticism I can make of the work of the referees is that they have in many cases been assigned a great subject which involved a lifetime work, or, at any rate, work for many years to cover it completely. It would be a big improvement, in my opinion, if instead of assigning general subjects little portions of that subject be assigned by the executive committee, according to a definite plan, so that only one small investigation at a time is occupying the referee. Then the whole subject will be gradually covered by the referee, or a series of referees, in the course of a few years.

"A subject like feed adulteration, for instance, in general terms, without any specific problem involved, does not seem a profitable way to get any clean-cut results. More, I think, could be accomplished by selecting one or two definite forms of adulteration and instructing the referee to work and report on that, instead of letting him wrestle with the whole subject.

"I feel very strongly that the referee should be given the greatest amount of freedom in the handling of his subject. I also feel, however, that in outlining his work he should only plan for as much as he feels he will be able to complete during his two years as referee. Then, if it is the feeling of the association that he has rendered very valuable service, he might be reappointed to continue the work. I think, however, that this latter course is only advisable in unusual cases.

"The question of sending out samples is largely dependent, it seems to me, upon the work in hand. In many cases it will doubtless be necessary for the referee to devote his entire time to research. Again, he may have his methods worked out after a few months to such a point that he feels the need of co-operation and confirmation of his own results. In such a case I think too much emphasis cannot be laid upon sending out samples. I do feel, however, that the samples should not be sent out until after the referee has done a great deal of research and worked on the method for a sufficient time to have a very definite opinion in his own mind as to the practicability of the method. I feel that this is necessary, owing to the fact that the referee, after working with a method for a long time, often becomes so familiar with it that in his hands it gives very satisfactory results, whereas, in another's hands, it may not prove satisfactory."

Others taking part on the program of the convention were as follows:

"Phosphoric Acid" (two papers)—A. J. Patten, East Lansing, Mich.; "Basic Slag," and L. S. Walker, announcing "Citrate Solution."

"Ammonium Tri-Citrate," Dr. Robt. A. Hall, University Minnesota.

Nitrogen: "Determination," R. M. Brackett, Clemson College, S. C.; "Special Study Kjeldahl Method," I. K. Phelps, Washington, D. C.

"Potash," E. E. Vanatta, Columbia, Mo.

"Determination," T. D. Jarrell, College Park, Md.; "Availability," E. E. Vanatta, Columbia, Mo.

"Soils," J. W. Ames, Wooster, Ohio.

"A Method of Determination of Lime Requirements," W. H. McEntire, Knoxville, Tenn.

"Interpretation of Soil Analyses," G. S. Fraps, Experiment Station, College Station, Texas.

"Nitrogenous Compounds of Soils," Charles B. Lipman, Berkeley, Cal.

"Alkali Soils," R. F. Hare, State College, N. Mex.

"Inorganic Plant Constituents," B. E. Curry, Durham, N. H.

"Insecticides," R. C. Roark, Washington, D. C.

"Address," Dr. Harvey Wiley.

"Water," W. W. Skinner, Washington, D. C.

"Committee A on Recommendations of Referees," B. C. Ross, Auburn, Ala.

"Availability of Phosphoric Acid in Basic Slag," C. B. Williams, Raleigh, N. C.

"Food Standards," William Frear, State College, Pa.

"Report of Committee to Co-operate with Other Committees on Food Definitions," William Frear, State College, Pa.

"Editing Methods of Analysis," to be appointed.

"Report of Committee on the Study of Vegetable Proteins," T. B. Osborne, New Haven, Conn.

"Report on Proposed Journal of Agricultural Chemistry," Dr. C. L. Alsberg, Washington, D. C.

"Food Adulteration," Julius Hortvet, St. Paul, Minn.

"Colors," W. E. Mathewson, New York, N. Y.

"Saccharine Products," F. L. Shannon, Lansing, Mich.

"Fruit Products," H. C. Gore, Washington, D. C.

"Wine," R. G. Hartmann, Chicago, Ill.

"Maraschino," J. G. Riley and A. L. Sullivan of the Boston Food Inspection Laboratories, and read by C. S. Britton, Chief of Philadelphia Food Inspection Laboratories.

"Beer," J. G. Riley, Washington, D. C.

"Distilled Liquors," A. B. Adams, Washington, D. C.

"Vinegar," E. H. Goodnow, St. Paul, Minn.

"Flavoring Extracts," A. E. Paul, Chicago, Ill.

"Relationship Between the Alcohol Soluble Solids and Ether Soluble Solids in Standard Ginger Extract," C. W. Harrison and A. L. Sullivan of the Boston Food Inspection Laboratories and read by C. S. Britton, Chief of Philadelphia Food Inspection Laboratory.

"Spices," R. W. Hilts, San Francisco, Cal.

"Baking Powder," R. E. Remington, Fargo, N. Dak.

"Meat and Fish," H. S. Grindley, Urbana, Ill.

"Fats and Oils," R. H. Kerr, Washington, D. C.

"Dairy Products," Julius Hortvet, St. Paul, Minn.

"Neutralization Precipitate of Cow's Milk," L. S. Walker, Experiment Station Massachusetts, and read by E. F. Trowbridge, University of Missouri.

"Vegetables," E. W. Magruder, Richmond, Va.

"Cocoa and Cocoa Products," H. C. Lythgoe, Boston, Mass.

"Tea and Coffee," J. M. Bartlett, Orono, Maine.

"Preservatives," A. F. Seeker, New York, N. Y.

"Organic and Inorganic Phosphorus in Foods," E. B. Forbes, Wooster, Ohio.

"Heavy Metal in Foods," E. L. P. Treuthardt, Washington, D. C.

"Milk and Cheese," Leroy S. Palmer, Columbia, Mo.

"Meat Proteins," A. D. Emmett, Urbana, Ill.

"Committee C on Recommendations of Referees," H. E. Barnard, Indianapolis, Ind.

"Dairy Products," L. I. Nurenberg, Boston, Mass.

"Foods and Feeding Stuffs," G. L. Bidwell, Washington, D. C.

"Feed Adulteration," Carlton Cutler, W. Lafayette, Ind.

"Determination of Crude Fiber," C. K. Frances, Agriculture Experiment Station, Stillwater, Oklahoma.

"Gossypol—A Toxic Substance in Cotton Seed," W. A. Withers and F. E. Carruth, Agriculture Experiment Station, Raleigh, N. C.

"Crude Fiber," G. L. Bidwell and G. P. Walton, Bureau of Chemistry.

"Testing Chemical Reagents," J. B. Rather, College Station, Texas.

"Committee B on Recommendations of Referees," E. M. Chace, Washington, D. C.

Reports of Committees, Resolutions, Nominations, etc.

"Synthetic Products," W. O. Emery, Washington, D. C.

"Medicinal Plants," Frank Rabak, Washington, D. C.

"Report on Determination of Santonin in Levant Worm Seed," E. K. Nelson, Bureau of Chemistry.

"Balsams and Gum Resins," E. C. Merrill, Washington, D. C.

OFFICERS, REFEREES AND COMMITTEES OF THE ASSOCIATION OF OFFICIAL AGRICULTURAL CHEMISTS, 1914-15.

Honorary President—H. W. Wiley, Washington, D. C.

President—C. H. Jones, Burlington, Vt.

Vice-President—R. N. Brackett, Clemson College, S. C.

Secretary—C. L. Alsberg, Washington, D. C.

Additional Members of the Executive Committee—Julius Hortvet, St. Paul, Minn.; E. F. Ladd, Fargo, N. Dak.

Referees—Phosphoric Acid, L. S. Walker, Amherst, Mass. (first year); Nitrogen—Determination, R. N. Brackett, Clemson College, S. C. (second year); Separation of Nitrogenous Substances, A. W. Bosworth, Geneva, N. Y. (second year); Potash, E. E. Vanatta, Columbia, Mo. (second year); Soils, J. W. Ames, Wooster, Ohio (second year); Dairy Products, L. I. Nurenberg, Boston, Mass. (second year); Feeds and Feeding Stuffs, G. L. Bidwell, Washington, D. C. (second year); Food Adulteration, Julius Hortvet, St. Paul, Minn. (third year); Sugar—Insecticides, R. C. Roark, Washington, D. C. (second year); Inorganic Plant Constituents, W. B. Ellett, Blacksburg, Va. (first year); Medicinal Plants and Drugs, W. O. Emery, Washington, D. C. (first year); Water, W. W. Skinner, Washington, D. C. (fifth year); Testing Chemical Reagents, P. H. Walker, Washington, D. C. (first year); Water in Foods and Feeding Stuffs, W. J. McGee, Washington, D. C. (third year); Organic and Inorganic Phosphorus in Foods, Feeding Stuffs and Drugs, E. B. Hart, Madison, Wis. (first year).

Associate Referees—Phosphoric Acid, W. J. Jones, Jr., Lafayette, Ind. (first year); Nitrogen—Determination, H. D. Haskins, Amherst, Mass. (second year); Special Study of Kjeldahl Method, I. K. Phelps, Washington, D. C. (second year); Separation of Nitrogenous Substances—Milk and Cheese, Leroy S. Palmer, Columbia, Mo. (second year); Meat Products, A. D. Emmett, Urbana, Ill. (third year); Potash—Determination, T. D. Jarrell, College Park, Md. (second year); Soils, R. F. Hare, State College, N. M. (first year); Nitrogenous Compounds, C. B. Lipman, Berkeley, Cal. (second year); Alkali in Soils, R. F. Hare, State College, N. M. (second year); Dairy Products, W. M. Clark, Washington, D. C. (second year); Foods and Feeding Stuffs, A. C. Summers, Columbia, S. C. (second year); Feed Adulteration, Carlton Cutler, W. Lafayette, Ind. (second year); Crude Fiber, C. K. Francis, Stillwater, Okla. (new subject, first year); Food Adulteration—Colors, W. E. Mathewson, New York, N. Y. (fourth year); Saccharine Products, F. L. Shannon, Lansing, Mich. (second year); Fruit Products, P. B. Dunbar, Washington, D. C. (first year); Wine, B. G. Hartmann, Chicago, Ill. (third year); Beer, H. S. Paine, Washington, D. C. (first year); Distilled Liquors, A. B. Adams, Washington, D. C. (third year); Vinegar, C. M. Bradbury, Richmond, Va. (first year); Flavoring Extracts, A. E. Paul, Chicago, Ill. (third year); Spices, H. E. Sindall, Philadelphia, Pa. (first year); Baking Powder, R. E. Remington, Fargo, N. Dak. (second year); Meat and Fish—Fats and Oils, R. H. Kerr, Washington, D. C. (third year); Dairy Products, Julius Hortvet, St. Paul, Minn. (third year); Cereal Products, L. A. Fitz, Manhattan, Kan. (first year); Vegetables, W. D.

Bigelow, Washington, D. C. (first year); Cocoa and Cocoa Products, H. C. Lythgoe, Boston, Mass. (third year); Tea and Coffee, J. M. Bartlett, Orono, Me. (third year); Preservatives, A. F. Seeker, New York, N. Y. (third year); Heavy Metals in Foods, E. L. P. Treuthardt, Washington, D. C. (second year); Sugar, M. N. Straughn, Washington, D. C. (fourth year); Insecticides, O. B. Winter, East Lansing, Mich. (second year); Medicinal Plants and Drugs—Synthetic Products, W. O. Emery, Washington, D. C. (fifth year); Medicated Soft Drinks, W. F. Sudro, Fargo, N. Dak. (second year); Medicinal Plants, Frank Rabak, Washington, D. C. (second year); Alkaloids, H. Buchbinder, Washington, D. C. (second year); Balsams and Gum Resins, E. C. Merrill, Washington, D. C. (second year); Water, H. P. Corson, Urbana, Ill. (second year); Tannin, F. P. Veitch, Washington, D. C. (third year); Inorganic Plant Constituents, R. W. Thatcher, St. Paul, Minn. (second year); Testing Chemical Reagents, R. C. Wells, Washington, D. C. (second year).

Co-operation with Other Committees on Food Definitions—William Frear, State College, Pa.; Julius Hortvet, St. Paul, Minn.; J. P. Street, New Haven, Conn.

Recommendations of Referees and Revision of Methods (figures in parentheses refer to year in which appointment expires)—P. F. Trowbridge, chairman.

Subcommittee A—A. J. Patten (1918), W. W. Skinner (1916), B. B. Ross (1920), chairman, Alabama Polytechnic Institute, Auburn, Ala. (Phosphoric acid, nitrogen, potash, soils, inorganic plant constituents, insecticides, water.)

Subcommittee B—R. E. Stallings (1918), P. F. Trowbridge (1916), H. C. Lythgoe (1920), chairman, State Department of Health, Boston, Mass. (Dairy products, foods and feeding stuffs, sugar, water in foods and feeding stuffs, organic and inorganic phosphorus in foods, feeding stuffs and drugs, separation of nitrogenous bodies, testing chemical reagents, tannin, medicinal plants and drugs.)

Subcommittee C—L. M. Tolman (1918), H. E. Barnard (1916), chairman, Indianapolis, Ind.; R. E. Doolittle (1920). (Food adulteration.)

Editing Methods of Analysis (Bulletin 107, Revised)—R. E. Doolittle, chairman; W. A. Withers, Raleigh, N. C.; J. P. Street, New Haven, Conn.; A. F. Seeker, New York, N. Y.; G. W. Hoover, Chicago, Ill.; B. L. Hartwell, Kingston, R. I.

Study of Vegetable Proteins—T. B. Osborne, New Haven, Conn., chairman.

Availability of Phosphoric Acid in Basic Slag—C. B. Williams, West Raleigh, N. C., chairman; C. G. Hopkins, Urbana, Ill.; H. D. Haskins, Amherst, Mass.; B. L. Hartwell, Kingston, R. I.; J. A. Bizzell, Ithaca, N. Y.

Review of the Analysis of Lime Sulphur Solutions—R. J. Davidson, Blacksburg, Va., chairman; C. S. Cathcart, New Brunswick, N. J.; H. H. Hanson, Orono, Me.

Members of the Association of Official Agricultural Chemists:

DR. ALSBERG RE-ELECTED.

Dr. Carl L. Alsberg, chief of the Bureau of Chemistry, Department of Agriculture, was re-elected president of the Chemical Society of Washington at the meeting of the organization at the Cosmos Club Nov. 12th. The other officers elected were: First vice-president, R. B. Sosman, of the geophysical laboratory; second vice-president, E. C. McKelvy, of the Bureau of Standards; treasurer, F. P. Dewey, of the mint; members of council, J. A. LeClerc, of the Bureau of Chemistry; P. H. Walker, Bureau of Standards; J. Johnston, geophysical laboratory, and F. P. Dunnington, University of Virginia; executive committee, E. W. Boughton, Bureau of Standards; O. F. Black, Bureau of Plant Industry; A. N. Finn, Bureau of Standards, and E. C. McKelvy.

Two proposed amendments to the constitution of the society were laid on the table.

CONVICTIONS AGAINST DEALERS IN BAD EGGS.

D. Cohen and J. Markowitz, a copartnership trading as Cohen & Markowitz, in the city of Chicago, were convicted of having in their possession with intent to sell a certain article of food known as cake, the said cake being adulterated in that it contained among other substances a quantity of liquid eggs which consisted in whole or in part of a "filthy, decomposed or putrid animal substance."

H. Rothenberg and A. Weisenthal entered a plea of guilty to the charge of unlawfully having in their possession decomposed eggs with the intent of converting them into a certain egg product known as liquid eggs, which said product is used in the manufacture of foodstuffs.

American Specialty Manufacturers Meet

THURSDAY, NOVEMBER 19, 1914.

10 a. m.—Opening Session.

The opening session at 10 a. m., November 19, was called to order by President Runkel with a big percentage of the membership present and a large number of visitors.

The invocation was offered by Rev. W. H. Roberts of Philadelphia.

In a most unique address Mr. E. J. Cattell, city statistician, welcomed the delegates on behalf of Mayor Rudolph Blankenburg of Philadelphia.

James Foust, dairy and food commissioner of Pennsylvania, spoke on the subject of "Relation of Food Manufacturers and Food Commissioners." He advocated uniformity of food laws as the best means to avoid the occasion of fraud. He congratulated the members on the work they are doing and said, "It is my belief that the efforts of the honest manufacturers and dealers can be most helpful to the food commissioner in all his work. Co-operation between us is indeed necessary to the highest efficiency in service. Uniformity of food laws is always desirable but efficiency even more so. Your co-operation with the food commissioner and the public press has driven most of the grosser forms of adulteration from our foods." His address follows:

FOOD MANUFACTURERS AND FOOD COMMISSIONERS.

By JAMES FOUST.

(Dairy and Food Commissioner of Pennsylvania.)

The managers of your program have asked me to talk to you upon the subject, "The Relation Between Food Manufacturers and Food Commissioners."

This theme was so ably handled by your representative and others at the recent meeting in Portland, that I feel it unnecessary to treat the subject upon all its more important sides. To speak briefly and quite informally upon a few points is all that I shall attempt.

The responsibility of the food manufacturer is as large as his power of service to the people. Under the law, he is free to make any food he can, only so that it is wholesome and is sold for what it is and in the amount declared. He has also the greatest opportunity to act as the adulterator, and he knows best what the label must contain to be true. But all know that an honest brand doesn't insure an honest sale and that, if the manufacturer himself is deceived in his raw materials, his wares may suffer without bad intent on his part. What is not so well understood is the fact that the public itself has too long allowed loose ideas of "commercial right" to spread unhindered, or has merely shrugged its shoulders. Under the rule of such ideas, competition had pure honesty by the throat. Now it is hard for some insurance men, brokers and railroad directors, let us say, to understand why they should be suddenly frowned upon. Though they may have worked great harm, the blame is not all theirs.

That your Association realizes its responsibilities and the force of present public opinion, your own spokesmen have made so clear that I have no need to preach to you from that text. You have yourselves lifted up a fair banner in the cause of business morality.

The other party to the relationship named in my subject is the food commissioner. About him I know even more than I do about the manufacturer. I have heard that the food manufacturer sometimes has trouble with the food laws. So does the commissioner. As his name suggests, he holds a commission, but it is not a "roving" one. He is bounded on the one part of the circle by the law and on the other by his oath to enforce it as it stands. He doesn't make the law, though he is sometimes asked for suggestions while it is a-making. But you all know that free advice is mostly received, but not taken; a harvest 50 per cent true to seed is a very good crop from the sowing. Just one little word, well placed, may do as much work as a whole repealing paragraph; or it may make a blunderbuss of the legal gun so that the bystander is hit just as often as the enemy for whom the shot was intended; but the commissioner is under oath to shoot with that gun and to keep at it until he is given a better one.

But I am told that the commissioner should certainly have some executive discretion. Possibly; but under the present setting of the screws of public opinion and judicial decision, that spring doesn't have much chance to work. Too much

ought not to be expected of it, under the circumstances. I have known men to commit official suicide in trying to use it—they were called traitors; gave away their power to influence public judgment and gained nothing for any one. Where more latitude is allowed, of course the power should be so used as best to serve the public good.

The commissioner has, it is true, the first responsibility for interpreting the law. If its wording leaves a doubt, he can give either the public or the vendor the benefit of that doubt. But even in such case, where the meaning is brought into question in its bearing upon a matter of importance, his duty is to give that benefit to the public. Otherwise, with laws and the organization of the public business as they now stand, the people's side cannot get before the court.

But, it is urged, the commissioner ought to be constructive, not purely destructive, in his attitude. That depends upon what is before him. His attitude ought, as every one's ought,



PRESIDENT WALTER B. CHERRY.

to be helpful for the betterment of the conditions with which his office deals. I said "attitude"; I didn't say "acts." He may not use public agencies, nor public funds for purposes not covered by his authorization. It may, for some purposes, be wise to broaden the authorization, so that public agencies may aid the food maker to get out of some of the manufacturing difficulties which new public demands have gotten him into. I shall not go farther into this interesting subject, but may I hint that, even from the manufacturer's point of view, there are arguments against as well as for the giving of such public aid.

If in this brief sketch of the food commissioner's field of action, I have seemed to make of him a merely mechanical device the machinery of the public service, that is not my desire. I could only sketch, not fill in my part of the picture; and many heavy lines have been drawn in the other part.

I have spoken of the manufacturer and of the commissioner. It is high time to say something directly about the relation. Will you pardon me if I put the commissioner's business in homely words? It is his privilege to encourage the food manufacturers and dealers to behave, and within the limits of his authority to help them behave; but it is his *duty* to see whether or not they *are* behaving, and if he finds some are not, to take these to the courts for judgment and the application of the remedies prescribed.

This matter of behaving or not behaving is very largely a question of fact, sometimes of many facts. The commissioner's door ought to be wide open to the manufacturers who come with facts; in view, however, of his public responsibility, he should not be thought impolite if he keeps the door wide open while they are with him. It is hard enough to be always fair; it is even harder to *seem* always fair. But when you want to bring me facts, bring them yourselves; don't send a lawyer, eloquent and forceful though he may be, but who knows even less about the important facts than I do.

May I add a "don't"? Don't mistake the commissioner for the court. In my locality, they have not only separate offices, but separate duties.

Now I hope that from this rough sketch I have drawn, you will see clearly that I believe that the efforts of the honest manufacturers and dealers can be most helpful to the food commissioner and the cause he serves; indeed, that exchange of facts between them and him, either directly or through his expert advisers, is important to the highest efficiency of his service.

I am glad to be in position to say that the influence of high-purposed manufacturers' organization has already done much to reduce food trade abuses. Of the prosecutions brought within recent times in Pennsylvania for food law violations only 15 per cent represent interstate traffic—that is, the largest, most highly organized producing interest.

There is one point in your "objects of organization" upon which I will venture to touch; that is, uniformity of food laws. Uniformity is certainly desirable; efficiency is even more desirable. If you mean, secure somehow the best law possible and bring the laws of the other states or of the United States up to that, that is one thing. If you mean, secure uniformity everywhere, and then oppose improvement anywhere unless it can be had everywhere at the same time, that is a very different thing. Even if you and I came to full agreement upon what law would be desirable, the probability that all the state and national legislators would agree with us is very distant. You remember the old Quaker who exclaimed to his wife, "Betsey, everybody is queer but thee and me; and sometimes I think thee is a little queer." The old Quaker may not have had many blood relations, but his mental brethren are at least the majority of the country's legislators.

The co-operation of the honest and enlightened manufacturers and dealers and of the public press with the food commissioner has driven most of the grosser forms of adulteration from our foods. Their sanitary production and handling is fast coming to be regarded as even more important. While the laws committed to me for enforcement contain little that is specific upon food sanitation, I desire to use this opportunity to express my sense of its very high importance.

I fear I am consuming more than my share of your time. Allow me, in closing, to say how greatly I appreciate this opportunity of meeting you, of getting into touch with your methods of co-operation and of addressing you upon some of the many matters in which we are all interested.

Mr. Charles Wesley Dunn, the able counsel of the American Specialty Manufacturers' Association in an interesting address called attention to lack of uniformity in federal, state and municipal laws and regulations. Following is what he said:

ADMINISTRATION OF STATE FOOD AND DRUG LAWS.

By Charles Wesley Dunn, Counsel.

The uniformity of the food and drug laws, Federal and State, has received much thoughtful consideration during the past year. We would fondly believe that its meaning and need is becoming clearer and more real each year.

The conflict between Federal and State jurisdiction, the defining of the end of one and the beginning of the other, has been before this nation as a problem for solution since its very inception. But this problem has assumed far more serious aspects during the past twenty odd years, with the advent of real and intimate regulation of commerce, Federal and State. The recent decisions of the Supreme Court of the United States in the rate cases were of vast importance

in establishing the principle that Congress may, through its exclusive control over interstate commerce, enforce uniformity of regulation—where interstate commerce is at all concerned. We would quote the words of Mr. Justice Hughes in the Minnesota rate case: "It has repeatedly been declared by this court that as to those subjects which require a general system or uniformity of regulation the power of Congress is exclusive."

There are some who contend that a marked change in public opinion has developed in recent years, coincident with the development of the theory of commercial regulation, favorable to and demanding a single, central and exclusive Federal control. There are others who submit that a single, central and exclusive Federal control is repugnant to our present conception and theory of government, that the solution waits upon uniform state regulation.

Be that as it may, all subscribe, I believe, to the proposition that regulation of commerce should be uniform and harmonious. It needs no argument to demonstrate this proposition, which is self-evident, any more than an argument is needed to demonstrate the necessity for a common language in order that two individuals may converse with understanding and intelligence.

We must be certain that we understand the meaning of the term "uniformity," as I use it, in order that its significance may be fully comprehended. Such uniformity does not mean, at all, the squaring of the letter of one law with the letter of another law, so that each reads like the other, irrespective of the character or quality of the law. Such uniformity might be termed "inanimate" or "inconsiderate" uniformity, because it moves blindly and fails to call into being the purpose of the law and fails to consider its application. Living and considerate uniformity, as we now view it, would mean the most efficient law, the most useful and the most equitable law universally prevailing plus the most efficient, the most useful and the most equitable enforcement of such law, thereby serving and conserving the best interests of all concerned and conferring equal protection and equal benefits.

I sometimes fear that we hear the phrase "similar to the Federal law" so often spoken that we finally mouth these words as a habit with the idea that we thereby define uniformity in its perfection.

Any consideration of the efficiency of the food and drug laws would immediately distinguish between—First, the laws, of themselves, and second, the administration of these laws. The relationship between the administration and the final usefulness of these laws becomes the more intimate on careful consideration. And it is concerning the administration of the State food and drug laws that I would direct your attention. No doubt this subject could be far more intelligently and clearly illuminated by those who have had experience in such administration. In a rather imperfect way it is our object to treat this subject more abstractly and impersonally.

Our single proposition is—that the usefulness of the food and drug law is entirely measured by the quality of its enforcement. Prima facie this proposition appears to be rather simple. Let us examine the situation, however.

It must first be borne in mind that the Federal Food and Drugs Act and the similar general State food and drug laws are distinctly negative in character. These laws are in the form of the ten commandments and might be resolved to this—"Thou shalt not make nor vend an unwholesome or harmful food, nor one that is deceitfully marked. Neither shalt thou make nor vend a medicine or other preparation intended for the cure, mitigation or prevention of disease of man or other animals, unless it be true to its professed standard or quality, nor one that is deceitfully marked in any degree."

From the very nature of these laws, therefore, the effect of the application is entirely measured by the character of their enforcement. A general rule or standard is set up and each concrete situation must be squared with this general rule or standard. Such being the case it is entirely possible for two equally intelligent and discerning individuals construing the same law to reach conclusions quite far apart. And we have forty-eight states. The courts are gradually establishing certain basic principles which are controlling—but the field is large and new problems appear each day. We should not withhold our respect for opinions honestly reached in the light of the information at hand. But the need for a practical degree of harmony in such conclusions is quite obvious. The general food and drug law might be compared with the other great negative laws, the Sherman Law and the recently enacted Federal Fair Trade Law.

The general food and drug law is a law of discretion. And

it is in this borderland of fact, wider or more concentrated, as the case may be, often a truly twilight zone, with shadowy or mirage confines, that the law advances, halts, fails or hurts, by its administration. Just as boundless as is its power for good, so, too, it may become an instrument that may be disturbing and hurtful to the innocent and legitimate. And no law, in principle, was ever founded on a sounder economic basis, entirely apart from public health and welfare considerations.

This elasticity or latitude of administrative regulation was recently before the United States Supreme Court in the *Antikamnia* case, in which case the validity of a certain regulation made under the Federal Food and Drugs Act was in issue and our highest court enunciated two basic propositions—First, the power of the three secretaries is one of regulation only—an administrative power only—not a power to alter or add to the act. Second, the extent of this power must be determined by the purpose of the act and the difficulties its execution must encounter. The second proposition might well be termed the “rule of reason.” It will be necessary in each bordering case to obtain a final judgment by our highest court in order to be certain whether or not a specific regulation is included within the scope of the general power to make regulations for carrying the law into effect, having in mind the purpose of the law and the difficulties its execution must encounter. Thus with the persuasive approval of the Supreme Court the designation of this law as a law of discretion is firmly established, and the importance of the administrative side looms larger.

If we consider the administration of the State food and drug laws, we immediately meet the question, “Who administers the State food and drug laws?” and the administrative machinery becomes not only an interesting but important question in the consideration of uniformity as we have defined it. Let us then examine the subject for a moment, and consider the general food laws, the general drug laws, and the special food and drug laws, successively and briefly.

On examination we shall find that the state board or department of health is the most generally accepted form of government in the enforcement of the State general food laws, being adopted in fifteen states, covering every section, generally of the country. The other forms of administrative government in the enforcement of the State general food laws are: Dairy and food commissioner (thirteen states), department of agriculture (nine states), agricultural experiment station (three states), food and drug commissioner (three states), food commissioner (one state), state chemist (one state), agricultural commission (one state), director of state laboratory (one state). New Mexico has no effective law. It is not surprising that the board charged with the oversight of the health interests, generally, of the state should be given the enforcement of the food laws. Neither is it surprising that the departments which have always cared for the agricultural interests of the state should be entrusted with the administration of these laws. Neither is it surprising that new departments or offices should be created for this important work. We cannot, on the other hand, state that one department board or office is *per se* more effective than another, for striking successes may be selected in each group, but which successes will be found, I believe, to be personal. Our sole purpose in this enumeration is to indicate that the administrative machinery in the several states charged with the enforcement of similar laws relating to the same products is quite diversified.

We will find the same situation existing in the enforcement of the State general drug laws, that is to say, laws defining the adulteration and misbranding of all medicinal preparations. The forms of government are—state board of health (fourteen states), state board of pharmacy (ten states), department of agriculture (eight states), dairy and food commissioner (eight states), agricultural experiment station (three states), food and drug commissioner (three states), agricultural commission (one state). It will be noted, therefore, that the form of the administrative machinery in the case of the general State drug laws is as diversified as in the case of the food laws.

We would direct attention to several facts in this connection:

First. There is a duplication of law in nearly every state. For example, the pharmacy laws duplicate the separate general drug laws, providing against adulteration, sophistication and substitution by the retail druggist.

Second. The general drug law and the general food law is not enforced by the same department, bureau or officer in the same state, separating work which appears to be analogous and should go hand in hand. As a result we find drug regu-

lation often distinctly neglected. In fact, twelve states, or one-fourth of the states of the United States, have inadequate drug regulation. This division of law and authority would seem to lead to duplication of effort and material appliances, lack of uniform enforcement, increasing cost and lessening efficiency. Instead of having a general drug sanitation law, when we have a general food sanitation law which is equally and, we believe, almost more needed, at this time, we find an entirely disproportionate emphasis on one or the other side. Again it seems more difficult for the state to care equally well for two such separate organizations.

Third. We find that duplicate laws of the same nature are enacted and given to different state departments to enforce, encouraging the influence of politics and discouraging proper and permanent action.

Fourth. We find that interested classes, engaged in the active practice of their profession, and so required by law, are entrusted with the enforcement of the law providing for inspection and against adulteration and misbranding of the products which they and others manufacture and deal in. It may be certain that economic questions will rise when the making or enforcement of a law is entrusted to one class of merchants or individuals whose personal interests conflict with the personal and equally legitimate interests of another class of merchants or individuals. Such is not the conception of law prevalent in this nation.

Fifth. We find that these laws are enforced by departments whose interests are largely divided, other and more or less important duties being committed to them. It will be noted that the commissioner of agriculture enforces the pure drug laws in several states. We find that in one state, for example, the sole statutory qualification for the office of commissioner of agriculture is that he must be a practical farmer engaged in his profession. All of which does not reflect in the slightest degree upon the efficient administration of the drug laws in such states, but rather discloses an archaic and curious condition of the law.

Sixth. We find that no official recognition is made where it might well and would be expected to be made of the fact that the drug law is entrusted to a certain officer for enforcement. For example, in eight states the dairy and food commissioner enforces the pure drug law. A significant omission, I believe.

Seventh. We find laws enacted and committed to no department to enforce, which laws sleep on until the breath of life is breathed into them by some prosecuting attorney, on complaint. These laws, while ineffective, are often disturbing in their uncertainty.

Eighth. We find the enforcement of the laws shifted frequently from one department to another.

These few observations indicate, on the surface at least, and unevenness and lack of balance, militating against true general efficiency, against uniformity both of law and enforcement.

If we turn to the special food and drug laws we find the same diversified form of administration. For example:

Pharmacy Laws—Enforced by the Ohio agricultural commission and the boards of pharmacy in the remaining states.

Poison and Narcotic Laws—Enforced by the boards of pharmacy and departments of health.

Biological Products Laws—Enforced by boards of health, agricultural experiment station, state veterinarians, sanitary commissioners, live stock sanitary board, etc.

Weights and Measures Laws (including compulsory declaration of quantity of contents laws)—Enforced by the several food officials and departments previously named and the department of weights and measures.

Paint, Oil and Turpentine Laws—Enforced by the food officials generally. In one state by the selectment of towns and boards of aldermen of cities.

Cold Storage Laws—Enforced by departments of health, dairy and food commissioner, food commissioner, etc.

Insecticide and Fungicide Laws—Enforced by agricultural experiment stations, board of horticultural inspection, department of agriculture, dairy and food commissioner, food commissioner, etc.

Feeding Stuff and Stock Remedy Laws—Enforced by departments of agriculture, dairy and food commissioner, agricultural experiment station, food commissioner, etc.

In addition we have special officials and departments for enforcing the meat inspection, grain inspection, beverage, fruit, sea food and other special laws.

It will be noted that the department or officer who is charged with the enforcement of the general food or drug law is not always charged with the enforcement of the special food and the special drug laws. As a result a situation may

develop as in New York state where there exists two complete general food and drug laws committed to the charge of two separate and distinct administrative departments, the department of agriculture and the state department of health, respectively, the determining factor being the bestowal of the appropriation. One of the two laws ever remains dormant but not repealed. In addition, the state board of pharmacy enforces the poison law and the state department of health is enforcing the narcotic laws, also a poison law. The cold storage law is enforced by the department of health, while the remaining special food laws, as also the insecticide and fungicide law, is enforced by the department of agriculture.

It is readily appreciated that in practice it has been expedient and necessary to utilize the administrative machinery available, that a uniform form of administration, generally adopted, is a matter of subsequent development. It is readily appreciated, also, that in the enforcement of certain special laws peculiar conditions are involved, that such administrative uniformity may not always be practicable. We do not suggest by such administrative uniformity an exact duplication, individual for individual, appliance for appliance, rather do we conceive of a general plan of uniform administration so identified and so developed and so intended.

It is true, in addition, that in the large and constant flow of food and drug legislation crowded into a short period of time, the building up of such a general and harmonious plan of administration has, of necessity, received less consideration—the first object being the enactment of the laws of themselves.

But we now repeat the single proposition which we are, at this time, considering, that the usefulness of the food and drug laws is entirely measured by the quality of their enforcement. And such administration largely involving, as it does, questions of fact, may vary according to the number of administrative departments. That only through co-operation and comity and a desire to work as a national unit can be given to all the people the most efficient service and benefits for general enjoyment. And we are wondering if the diversity of administrative machinery, the separation of fields properly one, the duplication of law and enforcement does not set up an arbitrary barrier, more or less severe, against this general national movement. We are wondering if the remarkable work done in the several states, to date, has not been accomplished despite inadequate facilities and means, instead of because adequate facilities and means have not been rather personal triumphs, due to ability, courage and perseverance. We are wondering, finally, whether a general plan of administration, nationally adopted by all the states, would not more fully realize the purpose and opportunities of these laws. Whether such national status and recognition would not measure the general efficiency by the highest efficiency, ensure to a greater degree the permanency and stability of such administration, instill a local pride to measure up to the general standard, bringing about general co-ordination and co-operation of law and construction of such law, affording a general knowledge and a sympathetic feeling, so that each state may conceive that it is working as part, and an important part, in a national co-operation, without relinquishing its sovereign independence, that each state is doing its coordinate share to serve all the people and consider all commerce as a unit governed by a single plan.

But we are looking, also, to the future value of such national coordination and co-operation and anticipate its real value when the punitive side of the law becomes the least important, and least conspicuous, to the time when the food and drug administrative departments will, supplementing the promotion of agriculture, become the greatest promoters of commercial and domestic economy, the great constructive forces of education, prevention and conservation, centers of scientific and technical knowledge, progressive agents of experimentation, aiding in the solving of manufacturing and other problems, the elimination of waste and improvement of methods, minimizing loss and teaching utilization, promoting the conservation and preservation of our food and drugs, a source of continued inspiration and confidence. We would fondly believe that such uniformity of administration would add materially to our present and future prosperity, happiness and welfare. There may be a vein of the visionary in this prospect but this nation was founded upon and flourishes by reason of true visions made real, and a beginning has already been made to the Federal Department of Agriculture and in several states as Kansas and Indiana.

The second day of the convention of the American Specialty Manufacturers' Association passed off in strict accordance with the program with the exception of the address which was to have been delivered by Dr. C. J. Crumbine, president

of the association, American Food and Drug Officials, who was unable to be present.

With a fair representation present, Dr. Carl L. Alsberg, chief of the Bureau of Chemistry, Department of Agriculture, delivered the principal address of the day. He said that the Department, in its efforts to standardize the methods of food manufacture, had no desire whatever to interfere with the methods of any particular industry. "We are simply looking out for the public health and for honesty in business," he said. "I wish to emphasize that the pure food act is not only a sanitary measure, it is also an act designed to prevent unfair competition. It benefits the manufacturer as much as it benefits the general public by protecting him from the dishonest competition of men who short-weight and adulterate their products." Following is the address of Dr. Alsberg in full:

ADDRESS OF DR. CARL L. ALSBERG,

Bureau of Chemistry, United States Department of Agriculture.)

I am sure it gives me a great deal of pleasure to be able to be here, because I have been watching the growth of this association. While I was unable to be present at the meeting at Atlantic City, it was with great regret that I had to decline to be present at that time. I want to apologize, Mr. President, for not having been able to be here on Thursday when I should have been to make my talk in its proper place, but I feel after I tell you why I remained in Washington you will excuse me. I remained in Washington in order to be present at the meeting of the joint standardization committee, which met in Washington after the meeting of the Association of Official Agricultural Chemists. With the work of that committee, I feel this association should be in sympathy, and I feel that from one point of view this association is in sympathy with the work of that committee. I gathered as much from the conference that it was my privilege to hold in my office last May with the delegation of the Food Trades Conference. At this conference, your spokesman, Mr. Dunn, urged upon the department to spare no effort to obtain uniformity in the administration of food and drug control between the Federal Government and the states and municipalities. Now I regard the work of this joint standardization committee at the present moment as one of the most important constructive undertakings in food and drug control; one that should, if it succeeds, do more to insure uniformity throughout the country than almost any other single factor.

At the conference which we had last May with the delegation, while it was urged that we make every effort to increase uniformity, it was frankly stated to us in the Bureau that the Food Trades Conference was not unanimous concerning the desirability of standardizing food products. To me it seemed inconsistent and illogical to have a delegation urge upon me the desirability of uniformity and at the same time say that the organizations which are urging us to be uniform are divided on the question of standardization. I can conceive of no way of getting real uniformity without also having uniform standards. I don't necessarily mean uniform legislative standardization, but uniform criteria, by which all federal, state and municipal officials judge the products that come within the scope of the food and drug control laws.

The problem will be far from solved if we have uniform laws. Men will always differ in their method of administering these laws and these differences will be minimized if they all have the same criteria by which to judge the products that must be controlled.

I think that the reason why food producers are not unanimous on the question of standardization is because the associations do not really understand the proposition. I think it is because the various individuals fear that everything is to be standardized. Now we can no more standardize everything in food and drug control than we can standardize everything in a machine shop.

There are three cardinal principles that must be observed in fixing standards: First, nothing which is or may be deleterious or injurious should be permitted; second, nothing which is in any way an imposition upon the consumer should be permitted; and third, nothing should be done which will prevent any wholesome food from reaching the consumer. The first two principles are so self-evident that they hardly need any discussion. The third is perhaps worthy of a little explanation. I think it meets the objection which is in the minds of those manufacturers that are opposed to any form of standardization.

Obviously if our standards are such that no wholesome product is kept from the consumer the manufacturer has little to fear from standardization. If that principle is to be ob-

served then the taste of the individual, the idiosyncrasy of the consumer, the skill of the manufacturer in compounding complex prepared foods of one kind of another, must be considered. If we were to endeavor or to propose to make standards for all our products, for every possible product, our standards would become so tremendous as to be unwieldy. No one proposes to tell the manufacturer of certain kind of soups how he shall make his soups any more than you would propose to tell the chief of this hotel how he is to prepare the food served on the table, provided the bill of fare doesn't lie about the food and the chef puts nothing unwholesome into it. I think if you will consider this your fears concerning the dangers to the trade of having standards will very largely disappear.

Of course, even the complex prepared food, compound food, by whatever name you choose to call it, must be sold, even if there is no standard for it, under an honest label, but there are many legal labels that are not fundamentally honest.

I think, gentlemen, if you will consider the three cardinal principles that I propose, for the making of standards, you will see that two of them are economic in effect and only one of them has anything to do with public health. Telling the truth on the label, provided there is no deleterious substances in the food, has only an indirect effect on public health, in so far as it cheats the consumer and brings him nearer to the starvation line. I don't believe the manufacturers realize that the Food and Drugs Act is both a public health measure and an economic measure. I do not believe that all manufacturers have stopped to consider that it is really a part of that mass of legislation, enacted during the past decade, which is directed against unfair competition. That, aside from being a hygienic measure, it is also a measure to prevent unfair competition, appears perfectly clear in the latest amendment to the Food and Drugs Act, the "net weight act," which provides that the quantity of food in a package must be declared upon the label. That plainly is an economic act, not a sanitary or public health act. The consumer should look upon the Food and Drugs Act as a measure to insure that he gets his money's worth. And it can also be looked at from the other side, that it is an act to prevent the honest manufacturer from being exposed to the unfair competition of his dishonest competitor who is misbranding, adulterating, short-weighting or short-measuring.

I think that if all of you will stop and realize that this fact was plainly brought out in the net weight act, and applies also to other forms of misbranding, you will realize that even when you have trouble with the Food and Drugs Act, it nevertheless has protected you and is protecting you from the dishonest competitor. If I can drive that point home to you gentlemen this morning I feel my trip from Washington to Philadelphia will have been well worth while.

REPORT OF MINCE MEAT SECTION.

(Craig Atmore, Chairman.)

The Mince Meat Section has felt very proud to have been the first of the trade sections that completed its organization in the American Specialty Manufacturers' Association. Our section feels today that the sectional movement, combining the general knowledge, prestige and resources of the larger body with the specialized knowledge of the members of the particular trade interested make a well-nigh ideal combination. We hope and trust that each year will see this movement grow and develop into a well rounded organization, that will be a mighty factor in developing better conditions in each trade and between all trades.

Our section is also proud of the fact that one of our members is to be the new president of the American Specialty Manufacturers' Association, and out of the depths of our knowledge of him as a wideawake competitor in business, and the zealous and unselfish friend, willing that we all should profit by his unstinted labor, we congratulate the American Specialty Manufacturers' Association on selecting as its leader so able, fair and generous a president as Walter B. Cherry. We pledge him our support and we congratulate you on your choice, and we claim the privilege of rejoicing with as many other friends in the great honor you have conferred upon him. No greater tribute can be made to any merchant than the admiration and friendship of his competitors, and this tribute the Mince Meat Manufacturers gladly offer to their friend, Walter Cherry.

I am glad, as chairman of this section, to be able to report that after a year's experience operating as a section of the American Specialty Manufacturers' Association the members of our section have found the association so profitable to them that at our annual meeting on Friday we decided to continue for the ensuing year. This is one of the greatest tributes to the worth and value of the American Specialty

Manufacturers' Association that could possibly be given, and I want to tell you why.

The Mince Meat Section is simply a previously existing organization, transformed into a section of your association, and was not formed as an outgrowth of the sectional movement in your association. The Mince Meat Manufacturers' Association was organized in 1911, and incorporated under the laws of the state of New York. It was capably and successfully conducted for two years. In December, 1913, at our annual meeting Mr. Cherry and I urged a year's trial as a section of the American Specialty Manufacturers' Association, and in spite of the fact that it meant an increase in our individual expense, and that for some of our members there could be very little trade benefit to be gained, they took our word. We sold them the American Specialty Manufacturers' Association on trial, and it was then up to the association to make good during this trial year, and that it has made good is shown by our action.

The Mince Meat Section is then glad to take its place in the ranks, and I can assure you that we have brought you ten members, whom I know from my association with them, are the kind of men you want, and whom any organization would be glad to get.

In three years of the give and take of association work, much of it done under spur of dire necessity and threatened disaster to our business, we have learned the lesson of friendly competition and of competitive friendship. We bring with us into the American Specialty Manufacturers' Association this spirit of mutual help and mutual forbearance. We will be glad to learn in addition all that you can teach us, and we trust and believe that the spirit of trade friendship, fair dealing and mutual help that has guided your association in the past will continue to grow from year to year until this association shall be the greatest force for good in the grocery trade of the United States.

Dr. T. B. Wagner, of the Corn Products Refining Company, New York, in one of the most interesting addresses of the convention, illustrating with stereopticon slides, showed how the absurd label laws of various states cause the manufacturers no end of annoyance without a single degree of added protection to the public. In some cases the state requirements compel a manufacturer to violate the national law to comply with the state law and in a number of cases it is impossible, when complying with the law, to have an attractive label. His address is herewith published in full:

UNIFORMITY OF PURE FOOD LAWS.

By Dr. T. B. Wagner.

AT all the meetings of food manufacturers which I have attended during recent years, one of the most important and most universally discussed subjects was the uniformity of food laws, that is to say, the desirability, if not necessity, of having the states so amend their individual food laws as to bring them into conformity with the Federal Food and Drugs Act and its amendments. Ever since the passage of the Federal Act in 1906 more stress was laid upon this subject and more energy was spent upon it, at least in so far as oratory is concerned, than on any other problem connected with the general subject of food laws, yet it cannot be said that any material progress has been made. It is true that a number of southern states have adopted, within recent years, food laws which are patterned after the Federal Act, but while this indicates progress in the right direction, it is offset somewhat by a rather strong opposition which has developed among a number of food commissioners who decry uniformity, claiming that their own laws are better than the Federal Act, and if anything, the latter should be amended so as to become practically a copy of their law. In fairness to these commissioners I would say that I do not believe they really understand what a burden they impose upon food manufacturers and consumers by enforcing not only their special laws already on the statute books, but by causing additional special laws to be enacted. Nor are the manufacturers, as a whole, alive to the situation. Immediately after the passage of the Federal Law, a large number of commissioners went on record as favoring the enactment of state laws patterned after the Federal Law, and because of this attitude, Senator McCumber of North Dakota was prompted to say the following in the North American Review of April, 1907:

"The honest manufacturer has heretofore suffered great inconvenience because of the diverse state laws on the subject of labeling, etc. Not only did the laws of the states differ materially from each other, but the construction placed on similar laws by food commissioners of the different states were inharmonious and antagonistic. Goods properly labeled to meet the requirements in one state would be improperly

labeled for admission into another state. In the near future manufacturers will be free from the necessity of making labels in accordance with forty-five different kinds of laws, as they have been practically held to do in the past."

A careful perusal, however, of the resolutions adopted at the meetings of the Association of American Dairy, Food and Drug Officials fails to reveal any reference to a movement for uniform food laws. This situation reminds me of the much discussed "co-operation"—another "problem" under the Food and Drugs Act. I fear there is quite a misapprehension on the part of food manufacturers as to what the object of this co-operation is. They take it, of course (at least I heard it so explained), that it means a co-operation between the food manufacturers for the ultimate benefit of the consumer. So far, however, it would seem that the sole object of this so-called "co-operation" is for the State and Federal officials to get together and assist each other in going after the food manufacturers.

I said before that it is my impression that even the food manufacturers do not fully appreciate the consequences of the lack of uniform laws. These I want to point out to you, and after I have presented the situation as I see it, I believe you will agree with me that special state laws are not only unwarranted but they are an unnecessary burden upon the manufacturers and fail to benefit the consumer in any way whatsoever. My criticism of the special laws is not limited to any one class of food products, but I shall select for illustration a line used in practically every household in this country and consumed in very large quantities—table syrups, because I can speak to you more particularly about them, as it is a line with which I am especially familiar, having been engaged in the manufacture thereof for many years.

There is no question but that much sophistication has been practiced in days gone by in this very important article of food. Syrup made from granulated sugar was generally used for adulterating maple syrup, and corn syrup was used in no less degree in the adulteration of molasses and other syrups. The statute books of the different states contain, therefore, a large number of laws aimed at the suppression of these sophisticated syrups. This is very proper and surely not open to criticism. A perusal, however, of the notices of judgment, issued by the U. S. Department of Agriculture, furnishes overwhelming proof that the Federal Act is fully sufficient to cope with the situation and render impossible the putting out of mixtures of this class under misleading names. This being so, there is no need for any special syrup laws. You might say: Granted that they do no good, of what harm are these special laws to the manufacturer? Let me explain. To add a solution of granulated sugar to maple syrup and sell this mixture under the name of "Vermont Maple Syrup" is a gross form of misbranding and adulteration. The sale of a mixture of corn syrup and molasses or sorghum under the name of "Genuine New Orleans Molasses," or "Pure Country Sorghum," is a flagrant case of adulteration and misbranding and must not be tolerated. However, it is perfectly legitimate for a manufacturer to sell a mixture of granulated sugar syrup and maple syrup under the name of "Sugar and Maple Syrup," and likewise it is perfectly proper to sell a mixture of corn syrup and molasses or sorghum under the name of "Corn Syrup and Molasses" or "Corn Syrup and Sorghum," as the case may be. Furthermore, it is entirely within the Federal law to sell a food product under its own distinctive or proprietary name without disclosing upon the label the actual nature or contents of the package, provided the article itself is wholesome and contains no substances injurious to health.

It would seem that there was little room for a controversy as to how these mixtures should be labeled. Unfortunately, however, most intense disputes have centered around these mixtures and I can illustrate the extent of these contentions by showing how these special laws affect the labeling and sale of these products. We find that the law of Michigan, for instance, makes it impossible for the manufacturer to sell his product under its own distinctive name; he is obliged to imprint, in addition to the name of the brand, the words "Corn Syrup" in type not less than $\frac{3}{8}$ inch square gothic letters. Then, this not being sufficient, he is compelled to state the ingredients and their percentages in type not less than $\frac{1}{4}$ inch square gothic letters. After the manufacturer has done this, he finds that the product is not legally labeled under the Federal Food and Drugs Act, because that law prescribes that an article of food, being a mixture of two or more ingredients, may not be named after any one of its ingredients. It is wrong, therefore, and illegal under the Federal Food and Drugs Act to label a mixture of corn syrup and refiners' syrup "Corn Syrup," yet to make the product salable in the state of

Michigan the manufacturer is compelled to label it in that manner and to thereby deliberately violate the Federal law. It might be argued that if the product were labeled "Corn Syrup with Cane Flavor," as indicated in Food and Drug Inspection Decision No. 87, this would meet the requirements of Michigan. However, upon studying the corn syrup law of Michigan, Act No. 123, Public Acts 1903, it will be found that the law especially provides that "such mixtures or syrups shall have no other designation or brand than herein required that represents or is the name of any article which contains a saccharine substance." This makes it impossible to employ the qualifying phrase "With Cane Flavor." This lack of uniformity led to peculiar conditions in the trade and for the purpose of illustration I shall recite our experience.

The manufacturer takes the trouble of using special labels on goods intended for the state of Michigan, and takes a chance of being prosecuted by the Federal Government for doing so. He cannot, however, prevent a jobber having his principal place of business, for instance, in Wisconsin or Illinois, from shipping into Michigan goods not having the special Michigan label, but being labeled in conformity with the Federal Food and Drugs Act, this is absolutely beyond the control of the manufacturer, and I am informed by the commissioner of that state that the out-of-the-state jobbers continue these shipments regularly and in large quantities. The within-the-state jobber receives his goods direct from the manufacturer, and of course they are labeled to meet the requirements of Michigan. This brings me to the final argument of this situation. Notwithstanding the fact that the manufacturer has gone to all this trouble, including the sending of notices to the jobbers in adjoining states that they must not ship goods into Michigan unless especially labeled, the consumer does not derive any benefit from the special law because when he makes his purchases at the retail stores he will receive, in many cases (particularly in small towns located near the state line), goods not labeled in conformity with the law of his state, which is supposed to provide for his better protection against fraud than the Federal law.

These laws may, therefore, be justly looked upon as inoperative and non-enforceable, particularly in view of recent decisions by the U. S. Supreme Court, notably the Grady-McDermott cases, which may be found reported in 126 N. W. 888, 143 Wis. 18 and in 228, U. S. 115. Laws of this kind are not limited to Michigan, but are found in other states as well, for instance, in Nebraska and Wisconsin, but it is not necessary for me to dwell upon them, as it would be largely a repetition of what I said about Michigan.

I do want to say something, however, with reference to Virginia and Minnesota. It is plain that it is the desire of large corporations engaged in the manufacture of food products to meet not only the letter but the spirit of the law, and to court the good will of the food officials. A trade-mark is a valuable asset and it is the duty of every corporation towards its stockholders to do everything within its power to increase the value of its trade-mark and to thereby strengthen the assets of the company. A manufacturer will, therefore, go a long way toward meeting not only the law but also the wishes of food officials rather than incur their displeasure and possibly jeopardize the standing which his trade-marked product enjoys among the people. One of the most striking examples which I can quote was furnished by one of the southern states. The food law of that state is substantially identical with the Federal law and some of our labels which are considered by other manufacturers models to pattern after were, much to our surprise, not found satisfactory by the commissioner. We sell in that state a mixture of corn syrup, molasses and sorghum under the name of "Mary Jane," and we state the composition of the product in a panel by itself in a conspicuous part of the label. This place happens not to be exactly in the center of the label, and this deficiency was the subject of an energetic protest on the part of the commissioner. He insisted that the statement as to the ingredients be placed squarely in the center of the label. It is difficult to figure out in what way this placing of the statement in the center is a benefit to the consumer. The product is not sold as molasses, or sorghum, or sugar syrup, but simply as "Mary Jane," and without being required under the law to state the ingredients, we do so voluntarily in what we believe to be a plain and conspicuous manner. Such notions make it necessary for us to have four different sets of labels for the same product, where one label, legal under the Federal Act, would be entirely sufficient and would convey fully as much information to the consumer as any of the special labels.

The state of Minnesota has the severest laws of all with respect to sorghum mixtures. Our ordinary brands are labeled in bold type "Corn and Sorghum Syrup, Corn Syrup 80%,

Sorghum 20%,"—a plain and truthful statement giving the consumer the most specific information. Under the law of Minnesota it must be labeled "Sorghum Syrup Substitute" (in 36 point bold faced Gothic capitals), although it does not pretend to be a substitute for any syrup in any sense. The "rulings" of the Food Department are less severe and under these it is permissible to sell the product as "Sorghum Flavored Syrup," provided this statement as well as the ingredients and their percentages are imprinted in type not smaller than 18 point bold-faced Gothic capitals, likewise the name and address of the manufacturer.

It will be clear to you that these requirements make it impossible to put out an attractive label, and furthermore the label being so filled up with reading matter in large type, it really becomes difficult for the consumer to figure out what the product is. I shall illustrate this now by reproductions which I shall throw upon the screen from slides which I had especially prepared for you, and which are exact facsimiles of the labels:

The first is the Standard Karo label. It clearly sets forth the composition, viz., the highest grade of corn syrup and a selected quality of refiners' syrup. The name and address of the manufacturer is given in prominent type, likewise the net weight.

May I be pardoned for stating in this connection that immediately after the enactment of the net weight amendment to the Federal Act, a series of weighings numbering close to 20,000, which were conducted by representatives of the Department of Agriculture and by ourselves, established the fact that fully 94 per cent of the cans of syrup, put up under this brand, were full and above full weight and only 6 per cent were found to be slightly below the indicated weight. I think this is a remarkable record for an article of food produced in enormous quantities and having the physical properties peculiar to syrups.

While the product is sold only under the name "Karo," the consumer is not in ignorance as to the exact nature of the article, because the first statement on the label gives its composition. One would think that this label would be acceptable everywhere, but we find that it cannot be sold in Nebraska, for, under the accepted interpretation of the syrup clause of the Nebraska law, the percentages of the ingredients must be stated. This requires a special label.

The old Wisconsin law prescribed that syrups of this kind must be sold under the name of "Glucose flavored with Refiners' Syrup," and that no other designation may appear upon the label. This law was contested by us and I am glad to say that the Supreme Court of the United States, upon a final review of the case, held that the syrup section of the Wisconsin food law was unreasonable and void. Subsequently, and at the request of the food commissioner, the legislature enacted a new law which presents the anomalous situation that while the product may be labeled "Corn Syrup," the word "Glucose" must appear in addition on another part of the label separated from all other reading matter. This law is now in litigation, but we meet its requirements in every respect, except that having in mind the decision of the U. S. Supreme Court, alluded to, we refuse to imprint the word "glucose." Even so, however, a special label is required.

The fourth variety of Karo labels is that required by the state of Michigan. (Picture.) You will observe that the product is offered under the name of "Karo Corn Syrup" printed in $\frac{3}{8}$ inch type—the ingredients and their percentages being given in $\frac{1}{4}$ inch type, as required under the law. As pointed out to you before, this label is illegal under the Federal Food and Drugs Act, but it meets literally the requirements of the Michigan law. I fully realize the risky situation in which I find myself by making this admission, for I am giving a hint, as it were, of this illegal label to the authorities in Washington. However, I have wrestled so long with this situation that I am perfectly willing to let them have their turn.

What I said about the blue Karo labels applies also to the red Karo labels, which I shall now throw upon the screen.

Now as to little Mary Jane. The label clearly sets forth the fact that Mary Jane is prepared from corn syrup, molasses and pure country sorghum. Even this frank confession did not save her from the clutches of the law of one state, and poor Mary Jane was jailed and is now awaiting her day in court.

Mary Jane may wander all over this country without molestation, but she must beware of Virginia, Minnesota and Nebraska.

Virginia insists that her pedigree must be imprinted right in the center, whereas Nebraska and Minnesota are not satisfied in knowing what Mary Jane is prepared from, but they

want to know exactly the percentages of ingredients which go to make up Mary Jane. Law-abiding citizens that we are, we meet the demands of these various states by using special labels for each of them.

The companion to Mary Jane is our "Lassies," and the "Lassies," of course, fared the same fate as Mary Jane.

One of the oldest brands of sorghum mixture is "Our Pride." It is an old-fashioned label, but clearly sets forth that it is "Corn and Sorghum Syrup" and composed of 60 per cent of corn syrup and 40 per cent of sorghum. It is needless to state that it meets the requirements of the Federal law. When readjusted to meet the requirements of Minnesota, it almost ceases being "Our Pride," for who could be proud of such a mutilated label as this?

We now have before us a label representing the "Tennessee" brand of corn and sorghum syrup, also plainly setting forth the fact that it is composed of 80 per cent of corn syrup and 20 per cent of sorghum. By the time the requirements of the state of Minnesota have been met, the label looks as though a cyclone had struck it.

"Aunt Sally's Corn and Sorghum Syrup" furnishes another striking illustration of the cyclonic effect of the Minnesota laws.

However, the fallacy of these special laws can best be illustrated by the next label which we are going to see on the screen.

A mixture of corn syrup and cane ("Refiners'") syrup may be sold in Michigan as "Corn Syrup" if this name is imprinted in type not less than $\frac{3}{8}$ inch square Gothic letters and the ingredients and their percentages are stated in $\frac{1}{4}$ inch type. If the mixture consists of corn syrup and molasses, however, the product must be labeled "Glucose Mixture," which name must be imprinted in type not smaller than $\frac{1}{2}$ inch in height and, in addition thereto, the word "Glucose," together with the percentage in which it is present, must also be imprinted in $\frac{1}{2}$ inch type. This label does not indicate anything as to the nature of the mixture, beyond the fact that it consists of 80 per cent glucose. The name itself is misleading and I do not believe would be tolerated under the Federal law. The term "Glucose Mixture" does not permit of any interpretation other than that of being a blend of different kinds of glucose and nothing else; no one in the world could imagine that it was a mixture of glucose and molasses. So here we have another instance where a manufacturer, in order to comply with the requirements of a state law, is compelled to violate the Federal Food and Drugs Act, not to mention the fact that two laws of a state upon practically one and the same subject are in conflict.

In this connection I would ask your permission to digress for a moment from the labeling of syrups, and say a few words about the guarantee legend—another "problem" under the Food and Drug law. Preceding its enforcement, a commission was especially appointed for the purpose of drafting a number of regulations which were published for the guidance of food officials and manufacturers alike. Among these regulations was one pertaining to the guarantee, and various forms of guarantees were suggested by the commission representing the U. S. Department of Agriculture and adopted by the manufacturers. Subsequently the claim was set up that the consumer was being misled by these guarantee legends into believing that the Government guaranteed the purity and wholesomeness of the food in question, and the Department of Agriculture proceeded, therefore, to notify the manufacturers that after a certain date the guarantee legend on labels would have to be discontinued. It may be taken for granted that the guarantee legend may have been abused by a certain class of food manufacturers, or more likely by manufacturers of drug preparations, but this does not seem to justify the abolition of the guarantee. Let us look at the guarantee as we have it before us on this label:

"Guaranteed by _____ Company to comply with the Food and Drugs Act, June 30th, 1906. Registered under serial number _____."

I defy anyone to prove that this statement deceives the consumer, for it is simply a notice that the manufacturer guarantees to him that the product complies with the Food and Drugs Act and that the product has been registered under a certain serial number. As a matter of fact, I question the authority of the Department of Agriculture to enforce the removal of this statement, for what is stated there is a plain fact and nothing else; it is the truth. A compliance with this new ruling of the Department places the manufacturer in an embarrassing situation towards the consumer, for the latter knows nothing of the rulings of the Department, and he most naturally makes the pertinent inquiry whether the

product was found not to comply with the pure food law and whether it had ceased being guaranteed. I am not going too far when stating that the obliteration of the guarantee legend prompted some consumers to discontinue the purchase of certain brands of food for no other reason than that they assumed that something was wrong with the product, otherwise the guarantee legend would still be on the label.

Returning to the question of special laws and how to improve the situation, I would say that the remedy lies, of course, in the legislatures, for they and they only have the power to enact laws and to repeal laws. The American Specialty Manufacturers' Association is a powerful and respected organization, and it has at its command a very able legislative committee, assisted by counsel of large experience. This committee can render the association an invaluable service by bringing these discriminatory laws to the attention of the leading business men of the different states, and by explaining to them the effects of the enactment of such laws.

RESOLUTIONS ADOPTED.

Resolved, That the American Specialty Manufacturers' Association hereby suggests the compilation and publication from time to time by the Federal Government, through such agencies and mediums as may appear most advisable, of as complete information as possible, relating to the food and drug control laws, regulations, standards, methods of enforcement and similar information, of the several foreign nations, which nations have given more particular attention to his subject, believing that such information will prove of inestimable and lasting value to the lawmakers, administrative officials, the manufacturers and dealers, and the people generally, of this great nation; and, be it further

Resolved, That a copy of this resolution be transmitted to the Secretary of the United States Department of Agriculture.

Resolved, That the American Specialty Manufacturers' Association hereby expresses its sincere and warm approval of the establishment of the Division on Federal and State Co-operation by the Secretary of the United States Department of Agriculture, believing that the division, connecting in a tangible and effective manner the Federal and State Food and Drug Control Departments, will be a potent force to bring about a greater uniformity of the food and drug laws, and will thereby render a lasting service to the people of this nation; and, be it further

Resolved, That a copy of this resolution be transmitted to the Secretary of the United States Department of Agriculture.

Whereas, Uniformity of the Pure Food and Drug Laws means the most efficient laws, Federal, State and Municipal, universally prevailing, affording thereby equal protection and a uniform standard of living for all the people of this great nation, and,

Whereas, Such uniform laws deal equitable and justly with the interests of all concerned, whether manufacturer, dealer or consumer, and aid economy of production and distribution, and,

Whereas, The Association of American Dairy, Food and Drug Officials, the Commissioners on Uniform State Laws, the American Bar Association, the National Food Trades Conference, the National Drug Trades Conference, the National Civic Federation, the Chamber of Commerce of the United States of America, and several other associations and organizations are actively and favorably interested in the attainment of such uniformity; therefore, be it

Resolved, That the American Specialty Manufacturers' Association hereby earnestly records its approval of such uniformity as being necessary in the general public interest and urges that every effort be made to the end that such uniformity may be as fully realized as possible.

Resolved, That the American Specialty Manufacturers' Association, in convention assembled, offers to the newly formed Committee on Uniform Food and Drug Laws, of the Chamber of Commerce of the United States, its sincere co-operation in the truly beneficial work to which that committee is about to direct its attention, bettering our food and drug laws by their uniformity and increased efficiency, believing that this association is particularly honored in that the chairman of this committee, Mr. W. M. McCormick, and the chairman of the subcommittee on Foods, Mr. A. J. Porter, are esteemed members of this association; and, be it further

Resolved, That a copy of this resolution be sent to the chairman of the above named committee.

Resolved, That the secretary be and is hereby directed to write to the Honorable S. J. Crunbine, president of the Association of American Dairy, Food and Drug Officials and express our sincere regret at his inability to be with us and offer our earnest co-operation in the constructive work of the association of which he is honored by being its president, and thereby aid in bringing about a greater efficiency in the food and drug laws, and so conferring lasting benefits upon the people of this great nation of whom we all are a part and whom we all are endeavoring to serve to the enduring blessing of all.

Resolved, That the American Specialty Manufacturers' Association has learned with the greatest interest of the efforts of the National Wholesale Grocers' Association, acting under the able and inspiring leadership of Mr. Fred R. Drake, to revise the weights and measures laws of the United States in order to provide for the general adoption of the Metric System and hereby cordially indicates that this important subject will receive our most careful and earnest consideration, to the end that the weights and measures system of these United States may be the most efficient and useful.

Resolved, That the American Specialty Manufacturers' Association, in convention assembled, views with approval the work of the National Food Trades Conference, of which conference our esteemed president, Louis Runkel, is the distinguished chairman, which conference, by a meeting held annually, is endeavoring to crystallize the opinion toward a greater uniformity in our food and drug laws, meaning the greater efficiency of these laws, and offers its sincere co-operation in this great and meritorious movement; and, be it further

Resolved, That a copy of this resolution be sent to the secretary of the National Food Trades Conference, John A. Green, secretary of the National Retail Grocers' Association.

Resolved, That the American Specialty Manufacturers' Association, in convention assembled, hereby tenders to the distinguished representatives, respectively, of the United States Department of Agriculture, Dr. Carl S. Alsberg; of the Pennsylvania Dairy and Food Department, the Honorable James Foust; of the General Federation of Women's Clubs, Miss Helen Louise Johnson; of the Pan-American Union, the Honorable Mr. Reed; of the National Wholesale Grocers' Association, Fred R. Drake; of the Wholesale Grocers' Association of Pennsylvania, New Jersey and Delaware, F. B. Reeves, Jr.; of the National Retail Grocers' Association, Albert Kaiser; of the Chamber of Commerce of the United States, W. M. McCormick (represented by R. H. Bond), and to A. J. Porter, C. T. Lee, Dr. T. B. Wagner, and Russel R. Whitman, this evidence of the deep appreciation of their presence and their instructive and valuable addresses, and which added so materially to the profit and success of this, the sixth annual meeting of this association, and thereby expressing the earnest purpose of the association to co-operate in the attainment of the greater health, happiness and welfare of this great nation; and, be it further

Resolved, That a copy of this resolution be sent to each such distinguished speaker.

J. E. Linihan, chairman of the Cereal Section, stated that they had no troubles and that they anticipated none except perhaps an advance in price of raw materials which would cause them some trouble.

The Spice Section, with W. M. McCormick, chairman, reported that their meeting would be held early in the spring, when a report would be made.

Laws prohibiting the use of coloring matter in foods were urged by C. F. Mueller, Jr., chairman of the Macaroni Section. "Honesty in foods," said Mr. Mueller, "is the just due to the public, and will promote the welfare of business. The use of coloring matter in noodles, for instance, to give the impression that they contain eggs is a gross imposition on the public."

Chocolate and Cocoa Section with C. L. Raynor chairman, made no report.

The Nominating Committee made the following recommendations for officers for the coming year and they were unanimously elected. The officers of the association now stand as follows:

President: Walter B. Cherry, Syracuse, N. Y.
First Vice-President: Fred Mason, Niagara Falls, N. Y.
Second Vice-President: Carl A. Lautz, Buffalo, N. Y.
Third Vice-President: A. M. Alexander, Chicago, Ill.
Treasurer: Victor Garrett, Jersey City, N. J.

Feed Control Officials Convene

THE sixth annual convention of the Association of Feed Control Officials of the United States was held in the Raleigh Hotel, Washington, D. C., November 13 and 14, under particularly favorable auspices.

Follows a list of the officers elected for the ensuing year:

John K. Haywood, President, Washington, D. C.

H. B. McDonnell, Vice-President, College Park, Md.

L. A. Fitz, Secretary-Treasurer, Manhattan, Kan.

EXECUTIVE COMMITTEE.

W. J. Jones, Chairman, Lafayette, Ind.

J. W. Kellogg, Harrisburg, Pa.

R. E. Stallings, Atlanta, Ga.

The President and Secretary, ex-Officio.

Among the large number of men prominent in the field of food and feedstuffs were Dr. Carl L. Alsberg, chief of the Bureau of Chemistry; Carl Vrooman, assistant Secretary of Agriculture; Dr. H. J. Waters, president of the Kansas State Agricultural College; Dr. H. W. Wiley; Dr. J. W. F. Duvel, United States Department of Agriculture; Dr. Abbott, of the Bureau of Co-operation; Dr. Cutter, food expert, of Chicago, and many others.

The opening session was called to order by Dr. J. K. Haywood, president of the Association, who, in the course of an able address, said:

"It is not my intention to lay before you the good work that has been accomplished by our Association during the past year, since our work speaks for itself and no resume is necessary to call it to your attention. Also the work accomplished during the past year is only a repetition of and extension of the work of previous years. I do wish, however, to draw to your attention certain lines of work and certain specific problems which, in my opinion, should be taken up by this Association. We have a very full program, so I will not burden you with a long address, but make my statement as brief as possible.

"Our most important work in the past has undoubtedly been the formulation and adoption of uniform definitions for feeds. This work is not yet completed and will doubtless continue for many years to come as new problems arise and new feeds appear on the market. However, the most important work along this line has been accomplished and in the future, while not growing less important, the volume will certainly grow less.

"It appears to me that our Association should now take the next step forward and concern itself with establishing and adopting standards for various feed products. We took the first step in this direction last year when we appointed committees to study the amount of hulls allowable in cotton seed meal, the amount of oat hulls allowable in clipped oats by-products, etc.; however, this was only a start and was undertaken rather as a side issue than as a settled policy of our Association. You all know that one of the important functions of the Association of State Food and Dairy Commissioners is to establish standards for foods and drugs. Our Association, which has the same relation to the feed trade as the Association of State Food and Dairy Commissioners has to the food and drug trade, should, in my opinion, also undertake similar work in a large way and as a settled policy. I recognize the fact that in some cases our methods of examination have not been developed to the point where we can establish definite standards for certain products; however, we can certainly establish standards for a great many products and constant study from year to year may show us that we can establish standards for those products which it seems impossible to standardize at the present time.

"It is unnecessary for me to speak of the desirability of establishing standards for the amount of hulls and lint allowable in cotton seed meal and standards for cold pressed cotton seed and ground cold pressed cotton seed since these subjects are already receiving the attention of the Association. I may say here, however, that some kind of standard, chemical or otherwise, should, in my opinion, be adopted.

"In going into this work I am of the opinion that the Association should carefully keep in mind that our standards should be such as could be met by manufacturers preparing their products in accordance with up-to-date commercial methods of manufacture. We must bear in mind that most of the products handled by us are by-products from the manufacture of foods and that it is the manufacturer's aim to obtain the best food product rather than the best feed by-

product. While, therefore, it might be in a particular manufacturing process, mechanically possible to obtain a feed that would correspond to a very high standard, such a standard should not be required if the manufacturer would have to sacrifice his process for obtaining a good food product in order to attain it. In other words, our standards should not be based on the best by-products mechanically obtainable, without regard to the quality and yield of the human food, but rather on the best by-products that can be obtained when the manufacturer uses the most up-to-date commercial and best mechanical methods for producing his human food product, and at the same time the best commercial and mechanical methods for producing his feed by-product, without sacrificing his human food product.

"I do not feel that I can complete my annual address without congratulating the Manufacturers' Association on the ethical stand they have voluntarily taken relative to a number of debatable questions and thanking them for their co-operation. As to the members of our own Association, I thank them with all my heart for the honor they have conferred on me in electing me president, and for their loyal support."

Constructiveness and fair play formed the keynote of the Honorable Carl Vrooman's address before the convention. Mr. Vrooman said:

"Gentlemen, it was with some trepidation that I accepted the invitation to come and say a few words to this body. I cannot pose as a feed expert. I am pretty long on food, but not as practiced in the diagnosis of feeds. But it gave me a little more confidence when I realize that, after all, the real feed expert is the cow and the hog and the other animals that consume this product, and I have a good many of them out on my ranches, and hence any of my shortcomings I can call on them to make good for me; and while I do not expect to say anything that will give you any information on this subject, I have found that in the little association that I have had with you personally, and the little time I have spent in looking up this matter, it has been educational to me. I have discovered some new dishes that I understand are sometimes offered to the livestock that remind me somewhat of the menu at the Chinese restaurants. I only this morning heard of ground corn cobs on the half peanut shell and oat hull meal without any cream, and various other decoctions that are interesting, if not alluring or appetizing.

"It is a real pleasure, however, to meet with you gentlemen because one of the main points that the Department of Agriculture is now laying stress upon is the attitude that is being taken, not only by you here at this meeting, but by the representatives of the various States at other meetings here this week, the "get-together" attitude. Here are men from various States of the Union, State officials and men representing the feed manufacturers of different States, and representatives of the Federal department. Now we are coming together here, as I understand it, to see if we cannot in some way co-ordinate our various ideas, so that no one interest, or no one point of view, will predominate to the disadvantage of any legitimate interest in this country. A gentleman came to see me the other day at the Department about a matter foreign to the matter under consideration this morning, and in the course of my conversation I said: 'There is one point I want to call your attention to, that the primary object of the Department of Agriculture is to encourage legitimate enterprise. The prevention or discouragement of illegitimate enterprise is a secondary consideration. The great work of the Department of Agriculture is constructive and this work of controlling enterprises so as to prevent illegitimate business is the minor chord in the symphony. Sometimes people who have broken some of the provisions of the laws we are called upon to enforce think that our main object in life is to get after them, but that is only a side issue, gentlemen, and in this work, as in all other works that come within the purview of the Department of Agriculture, the same principle prevails; we are here to serve legitimate interests, agricultural interests of this country primarily and all the interests of the country so far as we can that are on a legitimate business basis. And if you gentlemen call on us, anything that we can do to help the particular business in which you are interested, if you do not ask any special favors, we are always glad to do it. We play no favorites, but we are employed by the nation to build up the great agricultural interests of the United States.

"Now as for the laws on this matter, I am neither a lawyer nor a feed expert, but I have looked somewhat into the State legislation and we have our Federal Food & Drugs Act which applies to feed, that is to a certain extent, and our officials are here as public servants. Now if you are willing to get together with us and to get together with the representatives of the states and see how we can build up the legitimate feed interests of this country, you will have our heartiest co-operation. Come over to the Department; we will be glad to see you over there and show you anything we have. We will be very glad to help you in any proper way. I welcome you, gentlemen, and I am sure that all the employees of the Federal Department of Agriculture will co-operate with the representatives of the States here and of private industry here in putting upon a permanent basis the legitimate business interests connected with the great feed industry of our country. Thank you."

The full minutes of the 1913 convention of the Association, which were read by Secretary-Treasurer Fitz, were unanimously approved by the members in session.

REDFERN GOES TO IOWA.

The many friends and acquaintances of E. L. Redfern, until recently state chemist of Nebraska, will be pleased to learn of his appointment to the same position in Iowa, his native state.

It is a foregone conclusion that he will be able to repeat in Iowa the signal success which he achieved in Nebraska.



DR. E. L. REDFERN.

Doctor Redfern was born in Red Oak, Iowa, and received his early education in the public schools of that thriving little town. Later he attended university in Nebraska, where he graduated with high honors in chemistry.

The AMERICAN FOOD JOURNAL wishes him a full measure of success in his new undertaking.

THE KIWI BIRD OF NEW ZEALAND.

HARDLY a more tempting morsel can be offered to an Australian bushman than the roasted or boiled flesh of a kiwi; and, as usually results in such cases, the Maoris have killed these birds so incessantly and in such large numbers that they are now becoming scarce and will doubtless be extinct before long. Four or five species of Apteryx (meaning "without wings") occur in New Zealand, while two other species are known only by fossil specimens. The kiwis are about as large as an ordinary hen, have very stout legs, wings reduced to a mere useless stump, long snipe-like beaks, and no tail worth mentioning. Their plumage consists of streaked brown and gray feathers, which are incomplete, and give the disunited filaments the appearance of coarse hairs.



Kiwis live in small flocks on the forest hills of New Zealand, hiding during the day in thickets or in cavities of the ground or rocks. During the bright part of the day they sleep rolled up like a ball. They have an odd habit of resting at times in a standing position, with the point of the bill touching the ground, as if leaning on it for support. Their food consists chiefly of worms, which they catch through their sense of smell, using their long bills for digging into the earth. They build their nests, consisting of a little dry fern or a few leaves, at the end of a round tunnel in the ground. The eggs, generally two in number and of a greenish white with a smooth surface, are remarkably large. They are incubated principally by the male bird.

The Apteryx belongs to a group nearly related to the now extinct *Dinornis*, which also was a large wingless bird belonging to the ostrich tribe, whose bones are peculiar in that they have no air passage. The *Dinornis* had three toes and was of enormous size, sometimes growing to a height of twelve feet.

HOW TO COOK AND WHY.

It is somewhat peculiar that we have been in the habit of teaching our girls much about art, and have given a great deal of consideration to those things that come under the head of culture, but have neglected to see that they acquired proper knowledge of the most important work of their lives. We have the value of food products and how to prepare them in an economical and attractive way for the table.

All the questions relating to the value and preparation of food are ably considered by Elizabeth Condit and Jessie A. Long in a book called "How to Eat and Why," published by Harper & Brothers. As both authors have a national status in this field of endeavor, there pervades the work an agreeable tone of authority. Women who feel they know about all there is to know about cookery would find much in this work of interest and profit. They would acquire new and valuable knowledge.

The Hydrogenation of Oils, Catalysts and Catalysis and the Generation of Hydrogen is the title of rather an important work by Carleton Ellis, S. B. The work is illuminated with 145 pertinent illustrations. The publisher, D. Van Nostrand Company, offers an exceptional list of works on chemistry.

Recent Laws and Rulings

(Federal.) This is a suit for infringement of United States letters patent granted to Frank M. Peters in 1899 for an improvement in cartons for containing crackers, biscuits, etc., with an inner lining, and the method of making the same. The defenses interposed are want of invention and infringement. The invention relates to an improved method of and means for packing biscuits, crackers and other articles, and has for its object to provide an inexpensive package whereby bakery goods of this description may be kept fresh and in proper condition for consumption by effectually excluding moisture therefrom and whereby goods will be firmly packed and held and thereby prevented from rattling and breaking in the package. In order to give the reader a proper idea of the invention it is merely necessary to quote the specifications and argument of plaintiff Peters.

"Heretofore substantially air-tight and moisture-proof metallic cases or boxes have been employed for the purpose of preserving the freshness of biscuit or the like; but the use of these cases involves considerable expense, and they have only been employed in conjunction with the highest priced goods, their cost being too great to permit their use with less expensive goods in cartons or paper boxes, and in some cases these less cartons or boxes have been provided with a lining of what is known as 'waxed' or 'paraffined' paper; but in such packages as heretofore constructed this lining has not been so disposed as to close the openings or folds of the box and has itslef presented opening through which moisture has had direct access to the contents of the package. By reason of these facts such comparative inexpensive packages have failed to protect the goods from moisture, and they have quickly lost their freshness.

"It is the primary object of my invention to obviate these difficulties and to provide a package which at an expense practically no greater than that of the ordinary lined carton package will effectually protect the goods and preserve their freshness."

"The invention consists in completely enveloping the biscuits and crackers in an uncut or continuous lining or protective sheet and an outer sheet of heavier material provided with marginal flaps for folding the continuous lining and outer covering into the form of a box. Such protective sheet is composed of waxed paper and the outer covering of paste board."

In the United States District Court for Illinois, where the original case was tried, a decree was entered for the defendants, the court holding that the art of the Peters patent had been known and covered by patents of previous issue to his. This holding was affirmed by the United States Circuit Court of Appeals, the court saying that the Peters patent for a carton for containing biscuit, crackers and like articles, and the method of making the same, is void for lack of patentable novelty in view of the prior art.—*Peters v. Chicago Biscuit Company*, 215 Fed. 724.

(Illinois.) A city ordinance which requires venders of fresh meat, excepting poultry, fish, venison and wild game, to pay \$100 per annum in advance as a license fee, unaccompanied by provisions for inspection or regulation of the quality or wholesomeness of meats to be sold, or sanitary condition of the place in which the business may be conducted, is purely a revenue measure, and invalid, because not authorized by the Cities and Villages Act of Illinois. (Hurd's Rev. St., 1913, c. 24.)—*Hurb Bros. v. City of Alton*, 106 N. E. 434.

(Kentucky.) Inspection Decision No. 113 having relation to the standard requirements of all distilled spirits, and promulgated by the Secretary of Agriculture and the Secretary of Commerce and Labor, has been cited to the Supreme Court of Kentucky for judicial interpretation in the case of *Bonnie Brothers v. Bonnie & Company*. The plaintiffs, Bonnie Brothers, brought suit against Bonnie & Company to restrain the latter from using as a trade mark or label upon its bottles of rye whiskey the words "Bonnie & Co., Rye," on the ground that "Bonnie & Co., Rye" was an infringement of plaintiffs' trade mark "Bonnie Rye," and constituted unfair competition. The plaintiffs, who are descendents of the original Bonnie Brothers, claimed the right to the exclusive use of the word "Bonnie," as the same had been in use for over 35 years by their firm and through their efforts a wide reputation had been acquired for their product. Defendants claimed a right to manufacture and sell whiskey under the name "Bonnie" from the fact that one of the members of their

firm was a Bonnie and had at one time been a member of the original firm, that a man's name is his own property and he has a right to use and enjoy it as he may see fit providing such enjoyment is within reason, honesty and fair dealing. Defendants further justified their use of the name from the fact that plaintiffs had been marketing their whiskey as a straight whiskey, when as a matter of fact it was a blend, and had failed to use the word "blend" upon their label as required by the Federal Food and Drug Act under the ruling of Inspection Decision No. 113, heretofore mentioned, that such failure to properly mark their product prevented them from acquiring any exclusive right to the use of any trade name. In determining the case, the Supreme Court, as the court of review, was confronted with the question as to whether Inspection Decision No. 113 actually required blend whiskey to be marked "blend" where its standard was equal to the requirements as set forth for straight whiskey, though in fact it was a blend.

Inspection Decision No. 113, reads as follows:

"Under the Food and Drug Act of June 30, 1906, all unmixed distilled spirits from grain, colored and flavored with harmless color and flavor, in the customary ways, either by the charred barrel process, or by the addition of caramel and harmless flavor, if of potable strength and not less than 80 proof, are entitled to the name whiskey without qualification. If the proof be less than 80 (i. e., if more water be added), the actual proof must be stated upon the label and this requirement applies as well to blends and compounds of whiskey. Whiskies of the same or different kinds (i. e., straight whiskey, rectified whiskey, redistilled whiskey, and neutral spirits whiskey) of like substances and mixtures of such whiskies, with or without harmless color or flavor used for purposes of coloring and flavoring only, are blends under the law and must be so labeled. In labeling blends the act requires two things to be stated upon the label to bring the blended product within the exception provided by the statute: First, the blend must be labeled, branded or tagged so as to plainly indicate that it is a blend, in other words, that it is composed of two or more like substances, which in the case of whiskey must each of itself be a whiskey; and second, the word 'blend' must be plainly marked upon the package in which the mixture is offered for sale. A mixture of whiskies, therefore, with or without harmless flavoring or coloring matter, used for flavoring or coloring only, is correctly labeled 'Kerwan Whiskey.' A blend of whiskies. Nothing in the Food and Drugs Act inhibits any truthful statement upon the label of any product subject to its terms, such as the particular kind or kinds of whiskey vended as whiskey or as blends or compounds thereof, but when descriptive matter, qualifying the name whiskey, is placed upon the label, it must be strictly true, and not misleading in any particular. The law makes no allowance for seller's praise upon the label, if false or misleading, and the product is misbranded if a false or misleading statement be made upon one part of the label, and the truth about the product be stated upon another part. Similarly a product is misbranded if the label is false or misleading through the use of a trade mark statement, design or device. The fact that a phrase, design or device is registered in the United States patent office gives no license for deceptive use. All descriptive matter qualifying or particularizing the kind of whiskey, whether volunteered or required by law to be stated, as in the case of blends and compounds, must be given due prominence as compared with the size of type and background in which the name whiskey appears, so that the label as a whole shall not be misleading in any particular. Food Inspection Decisions 45, 65, 95 and 98, and all ruling in conflict herewith, are hereby revoked."

The interpretation of the court as to Inspection Decision 113 was that the failure to use the word "blend" on a whiskey of 80 proof was not a violation of the federal Food and Drugs Act. The court was not disposed to hold that the plaintiffs in failing to use the word "blend" had done so with the intention of defrauding the public. Any violation made by them was merely of a technical nature and one which should not require punishment. The court held that the word "rye" was a generic term, which of itself could not be appropriated, but when used in connection with another name it might be considered a trade name subject to exclusive appropriation and use. Decree of lower court for plaintiffs was affirmed by the Supreme Court.—*Bonnie Brothers v. Bonnie & Company*, 169 S. W. 869.

(Ohio.) The legislature of Ohio enacted a law in May, 1910 (101 O. L. 357), known as the Anti-Free Lunch Act, making it unlawful for a person engaged in the retailing of intoxicating liquors to give away or to furnish to any person, free of charge, in the place where said business is carried on, any food except crackers, cheese and pretzels. Another section made it unlawful for such retailer, at his place of business, to give away or furnish any intoxicating liquors, in consideration in part or in whole, for any food purchased in such place.

The defendants were charged with having given to a customer, free of charge, certain food other than crackers, cheese and pretzels, to-wit: sauer kraut, fish and bread, at their saloon in Cincinnati.

Upon a trial in the Municipal Court of Cincinnati, Judge Alexander held the act unconstitutional, and dismissed the defendants. In deciding the case, the court said in part:

"A regulatory law of the liquor traffic must pass the test of the court that it is a regulatory law; that it is a proper exercise of the general police power of the legislature to promote the morals, health, safety and general welfare of the public.

"The defendants are licensees, that is shown by the complaints. In the provisions of the 'anti-free lunch' act, I can see no condition of public health, morals, safety or general welfare warranting such legislative interference in the conduct of a legal business authorized by the constitution, nor why a person in pursuit of that business should be prohibited as in Sec. 13224-1 from disposing of his property in any wholesome food. The mind of a court would be shocked if a similar provision were made to apply to a restaurant that no food should be there given away freely. A law prescribing the manner in which food may be given away might come within the police power to promote the public health, for example, the legislature might by law require that all food be served to the customer on individual plates, with individual knives and forks and prohibiting the setting out of food on a table or counter where all could help themselves, the same knives and forks being used by all persons partaking of the food. Such a law might be enforced, not only against a saloon, but against any free food dispensary. It is not the giving away of wholesome food free of charge that would here be considered a menace to public health, but it is the manner in which much of it is dispensed, that is detrimental to public health. Would the public health be better conserved if a charge of one to five cents be made for the privilege of partaking of the lunch set out on the table or counter? And yet this very subterfuge could be used in case this law were declared constitutional."

State v. Ike Feld and Julius Dayton (Mch., 1914).

(Michigan.) Where canned apples were sold for use in bakeries there was an implied warranty that they were fit for the purpose notwithstanding the fact that they were sold under a written contract which contained express warranties as to the quality of the fruit and the kind of pack, and where the buyer examined several cans of apples out of a large quantity purchased and found them all right and thereupon accepted and paid for all, but thereafter received complaints from customers to whom he sold them, of a defect which developed after the inspection, and immediately transmitted the complaints to the seller, the buyer was not estopped from claiming damages occasioned by the defective condition. The Michigan Supreme Court has so held in the case of Wolverine Spice Company v. Fallas. The facts of the case were that plaintiff, a manufacturer and jobber of bakery supplies, purchased of the defendant canning company, 166 cases of canned apples. At the time the sale was made several of the cans taken at random were inspected and found to be all right. Later it developed that a taste of gasoline and rubber permeated the fruit so that customers of plaintiff made complaints. These complaints were immediately transmitted to defendant company who then suggested to plaintiff that he instruct his bakers to boil the apples in open kettles, as the disagreeable odor would evaporate and disappear in the steam. Plaintiff's customers were not satisfied to do this, as they claimed that they were entitled to good fruit without the bad odor. In view of the circumstances plaintiff tried to settle with defendants and have them take back the fruit, or settle for it. These efforts proving abortive, this litigation followed. In the Circuit Court of Kent County, where the case was originated, judgment was entered for the plaintiff. The defendants took an appeal to the state Supreme Court, where the judgment was affirmed.—Wolverine Spice Co. v. Dallas, 148 N. W. 701.

(Canada.) Section 490 of the Criminal Code of Canada makes it a penal offense to use the trade-mark of another upon bottled goods. A manufacturer of ginger-ale used in his trade bottles upon which the names of other firms were blown, filling them with his own product, placing his label upon them and selling them. The defendant admitted using the bottles, but claimed that he received them in exchange for his own in the course of trade. The defendant claimed, therefore, that having acted unwittingly and without any criminal intent, he was not guilty of the charge preferred. The court said that to constitute a crime, criminal intent must exist in some cases, but the rule is not without exception. In many cases the law makes criminal the commission of certain acts, although the accused had no intent to violate the law. The section of the code concerned was one which makes no mention of intent but makes the acts forbidden indictable offenses in themselves. The crime, therefore, was completed by the commission of the prohibited acts, even without any guilty intent. The defendant was fined fifteen dollars and costs, with the alternative of three months in prison in case of default.—King v. Coulombe, 6 Dom. Rep. 99.

GOOD YIELDS FROM THE DASHEEN IN THE SOUTH.

Results of experiments conducted by the United States Department of Agriculture show that while under unfavorable conditions a yield of 140 bushels an acre may be obtained from the cultivation of the dasheen, with specially favorable conditions this yield runs up to 450 bushels per acre. The dasheen is a vegetable somewhat resembling the potato, which was introduced into this country a number of years ago by experimenters in the Department of Agriculture from various parts of the tropics, in the belief that it would prove a valuable root crop for the South. This belief, it is said, is now justified by the outcome of experiments which have been in progress since 1909. Last year at the Brooksville station in Florida an average of 296 bushels per acre was obtained.

Of this quantity approximately one-third consisted of tubers for marketing and about one-fourth of tubers too small to be sold profitably but, nevertheless, large enough for home use. The bulk of the remainder could be disposed of as feed for cattle and hogs or used for seed purposes.

The dasheen is a staple article of food for millions of people in tropical and sub-tropical regions, and there seems to be no reason why it should not prove equally valuable in the southern and southwestern portions of the United States, as a substitute for or supplement to the potato and sweet potato. Indeed, the higher nitrogenous and starchy content of the dasheen may make it quite as valuable an article of diet as the more familiar potato in regions where it can be grown successfully. The peculiar nutty flavor of the tubers is very generally liked and when properly cooked the young leaves are an excellent substitute for spinach.

It is also an economical food, for it can be grown as a summer crop, ripening its tubers in October, in regions where the potato must be grown almost entirely as a spring crop. For this reason it is available for the table in the South at a time when northern grown potatoes must be shipped in at comparatively high prices.

At the present time, however, the specialists in the Department do not recommend the dasheen for cultivation generally in latitudes north of the Carolinas. The dasheen has been grown at a number of points much farther north than this, but the results did not seem to indicate that it would be a commercial success. It is really a tropical plant and requires a frostless season of at least six months and preferably longer. Where this requirement is met the dasheen may be grown successfully in any rich sandy soil where there is plenty of moisture and heat. In the irrigated sections of the Southwest there is reason to believe that it will do well.

Up to the present time the chief obstacle to the more general introduction of this root crop throughout the South has been the lack of knowledge of it on the part of the consumer and, as a consequence, the very limited demand. A forthcoming circular published by the Department of Agriculture under the title "The Dasheen, a Root Crop for the South," contains additional information for the prospective grower and a number of useful recipes for preparing the vegetable. These are well within the range of any competent cook and should provide an agreeable novelty for the family table. On account of the acrid principle that characterizes almost all plants of this family, however, care should be taken never to taste the leaves or even the tubers while raw. A teaspoonful of sal soda in each quart of water used in preparing the vegetable will keep the hands from being affected by the irritant that is also found in the outer part of the tuber.

FOURTH ANNUAL MEETING OF THE AMERICAN SOCIETY OF MILLING AND BAKING TECHNOLOGY.

THE fourth annual meeting of the American Society of Milling and Baking Technology was held at the Raleigh hotel, Washington, D. C., on November 18 at 1:30 p. m., there being eleven members and two visitors in attendance.

The minutes of the last annual meeting were read and approved.

The secretary's report showed that there were thirty-one active members on the list, and that in answer to a call for collaboration five members carried on collaborative work on milling, five on analytical methods, seven on baking and five with baking powders.

The treasurer's report showed a balance on hand of \$13.50.

The first paper presented was a report on the baking powder experiments as carried on by the collaborators. This was presented by Dr. T. J. Bryan. This was a report made by each of the five collaborators on the same sample of baking powder and the same flours, namely, a hard winter wheat flour and a soft winter wheat flour. Each collaborator compared the effect on quality and volume of biscuit, obtained by using 9 grams, 12 grams and 15 grams of baking powder, respectively, per 8 ounces of flour, and with three kinds of doughs, viz., standard, slack and stiff. No definite results were obtained, there being a greater difference in the duplicate experiments of each collaborator than in the difference between the slack, stiff and standard doughs.

It was decided to repeat the work the coming year, especial attention being paid to the following:

- (1) More accurate measurements of temperature of oven.
- (2) Method of mixing with water and the temperature of the water, which it was the consensus of opinion should not be above 36 degrees F.
- (3) Length of time of standing after adding the water, which time should be definite, say five or ten minutes.
- (4) Effect of temperature of oven and length of time of baking.
- (5) Specific gravity of the biscuits.

It was suggested also that the temperature of the oven be at the proper point for at least fifteen minutes before the biscuits be introduced into the oven, and that the thermometer be placed at a definite number of inches above the shelf.

Dr. Bryan demonstrated an apparatus to determine more accurately the volume of a biscuit.

The second report was made by B. R. Jacobs on the results obtained on analytical tests. The following tests were made in the determination of gluten:

- (1) Effect of keeping the dough for one hour in water, as compared with the effect of keeping the dough moist and covered for one hour.
- (2) Effect of washing the gluten for 10 minutes, 13 minutes and 15 minutes.
- (3) Effect of soaking the gluten in water for one-half, one and three hours.
- (4) Effect of drying the gluten at 120° to 130° for one hour and then 100° to 105° until constant, as compared with the drying at 100° to 105° until constant.

The results showed that no differences were obtained with 1, 3 and 4.

It was decided to study 2 again and compare the results obtained with the protein of the flour ($N \times 5.7$). Professor Saunders suggested that the gluten be washed in three changes of water, and it is also suggested that we note the effect of the temperature of the water and furthermore that we use distilled water, to which a definite amount of salt has been added for washing the gluten.

The third report was presented by Mr. Fitz. He gave the results of the work done by the collaborators on milling. Two lines of experiments were carried on:

- (1) Effect of tempering with 13 per cent, 14½ per cent and 16 per cent of water.
- (2) Testing the flours obtained by milling the wheat on a 45 per cent basis, the weight per bushel basis and 11/10 times the weight per bushel basis.

The results of the collaborators were not so uniform as might be expected, showing large variations in the kind of flour obtained under these conditions. It was decided to repeat this work next year.

Mr. Bailey suggested that when hard winter wheat contains less than 11 per cent of water, the tempering should be in such a way as to increase the water content up to 15 per cent and then let it stand 18 to 20 hours. If the wheat contains 13 per cent of water it should be tempered up to 15 per cent, and let it stand for two hours only. On the other hand a soft wheat which contains 12½ to 13 per cent of water re-

quires no tempering. It was suggested that 45 per cent of the best flour should naturally be from the middlings.

Mr. Bailey reported on the methods used in baking. Here again there was considerable discrepancy in the results of the various collaborators and it was decided to refer this problem to the referee for additional work next year. It was brought out that the weight and the volume of the loaf should be made by all the collaborators at the end of one hour; the scoring as to color and texture could be made the next day, however.

A paper was sent in by Professor Summers of the Operative Miller on "Absorptions." This was read by the secretary in the absence of the author. In the discussion it was stated that this method would not work with durum wheat flour.

The election of officers resulted as follows:

President—R. Harcourt.

Vice-President—R. W. Thatcher.

Secretary—J. A. LeClerc.

It was moved and seconded that the referees be appointed to study the following subjects:

Baking Powders.

Analytical Methods.

Milling.

Baking.

The following were named as referees, respectively:

T. J. Bryan.

B. R. Jacobs.

L. A. Fitz.

C. H. Bailey.

The meeting adjourned at 4:45 p. m.

J. A. LeCLERC, Secretary.

COMPARATIVE VALUES OF NUTRITIVE MATERIALS.

Each of these foods contains approximately the same amount of nutritive material as 1 quart of milk.

	—Weight—		Approximate	Cost per	Total
	Lbs.	Oz.	Weight, Gms.	Pound, Cents.	Cost, Cents.
Milk, Whole	2	2.36	975	..	8
Cheese, Full Cream ..		5.6	160	22	7.7
Condensed Milk,					
Sweetened .....	..	7.37	210	15	6.9
Eggs	1	.62	470	35 (doz.)	22.3
Beef, Round .....	..	11.85	335	20	14.8
Codfish, Salt	2	.48	920	7	14.3
Crabs	3	4.8	1,500	..	....
Oysters	4	14.21	2,217	15	72.6
Cornmeal .....	..	6.43	180	3	1.2
Bread, White .....	..	8.8	250	7.5	4.1
Beans, Dry .....	..	6.9	195	6.5	2.82
Beans, Canned,					
Baked	1	3	550	10	11.9
Beans, String	3	14	1,760	9	35
Potatoes	2	3.79	1,010	1½	3.95
Beets	4	2	1,870	...	....
Cabbage	5	11.8	2,600	2.5	14.3
Celery	10	2.4	4,600	5	50.7
Lettuce	10	2.4	4,600	10	104
Spinach	7	...	3,175	10	70
Squash	7	...	3,175	..	....
Tomatoes	7	...	3,175	5	35
Turnips	5	8	2,495	1	5.5
Onions	3	7.5	1,575	2	7
Mushrooms	3	8.1	1,620	75	268
Raisins .....	..	8.3	235	12	6.3
Oranges	4	6.4	1,995	6	26.4
Bananas	2	8.6	1,150	6	15
Apples	3	7.5	1,575	1.5	5.2
Walnuts, "English" ..	..	8.45	240	25	13.2
Peanuts, Whole ... ..	..	5.95	170	15	5.6
Peanut-butter .....	..	4.56	130	18	5.1
Cocoanut, Prepared ..	..	3.7	105	25	5.7
Chocolate .....	..	4	115	40	10
Cocoa .....	..	4.9	140	40	12.2

The above table is based on 1 quart of milk (2.147 lbs.) = 660 calories.

For further information as to the nutritive value of foods and uses of food constituents, see

Bulletin No. 22, Illinois State Food Commission,

Farmers' Bulletin No. 142, United States Department of Agriculture.

Washington, D. C., Correspondence

(From Our Staff Correspondent)

WASHINGTON, Nov. 30.—The co-operative work of the department of agriculture, under J. S. Abbott is approaching the point where those directly interested may look for results in the near future. The joint committee on standards, composed of Messrs. Hand, Ladd and Barnard, representing the American Dairy, Food and Drug Association; Street, Hortvet and Frear, the official agricultural chemists, and Alsberg, Emerson and Phelps, the bureau of chemistry, held a meeting about two weeks ago at which the discussion on a standard for condensed milk came down to such a fine point that to all intents and purposes there was agreement on that phase of the work which the committee is doing. The committee, however, is not ready to make public anything pertaining to its deliberations at this time.

This much, however, is a moral certainty: That the agreement provides an absolute minimum below which fats and solids in condensed milk may not run without bringing the manufacturer into conflict with the food control authorities, either of the state or nation. Another equally strong conclusion is that the minimum agreed upon is lower than the one known as F. I. D. No. 131 in which the fat content is fixed at 7.8 and solids at 26.5.

The committee decided that it should meet oftener in the future than in the past and the idea now is that a getting together five or six times a year will bring better results than attempts to do the work committed to the committee's hands by means of correspondence and infrequent conferences. At present it is working on standards for cheese, gluten flour, gluten meal, chocolate and the moisture content of dried fruits. By means of conferences, it is believed the desired end will be attained earlier than otherwise.

There is no thought of prescribing these standards as rules under the food and drugs act, according to the declaration of J. S. Abbott, the head of the co-operative work. The idea is that the standards to be agreed upon shall be guides for the food control officials in the enforcement of the federal and state statutes, to be offered in evidence as the views of experts on the subject, arrived at only after the most thorough investigation that could be given to the matter by officials who would not be influenced by any interest in the matter other than the public welfare.

Some day, when the committee has come to a conclusion as to what the standards on certain articles should be, an effort will be made to have congress either adopt them in words or amend the food and drugs law so as to authorize either the secretary of agriculture or the three secretaries to prescribe standards. Of course, congress has long had an opportunity to enact such legislation and has carefully refrained from doing so, many of its members being in doubt as to whether it would really be for the public good to have executive officials say how much of this, that or the other thing should be in a given article of food prepared in a factory, so long as it is made unlawful for the manufacturer to make false or misleading claims as to his product or to hide inferiority by resort to methods that obviously were resorted to for no purpose other than that of deception.

The committee, in its deliberations on condensed milk, went over the whole field of regulations on that subject, the Australian definition as to what is milk and the standard of 10 per cent fats and 30 solids being discussed with the possibility in view of having that definition and standard used in this country.

With the Australian definition and standard in use in this country there would be no necessity for fixing a low standard because if a vender can show that he has used milk up to the standard of the definition, there is no violation of the standard which fixes 10 and 30 as the figures of fats and solids.

Under the definition, milk is the lactic secretion of a healthy, well-fed cow thoroughly milked. Where there is no inspection, milk of that kind, no matter how much it may fall below the 10 and 30 standard may be lawfully sold. Where inspection is possible the condensation must be such

as to bring the product up to the standard. Australia, however, allows the use of borax as a preservative, which is one phase of the Australian system that would not be imported, even if the definition and standard were used.

The National Civic Federation which has a food and drugs committee of which Vincent Astor is chairman, is going to consider what may or should be done by that body in aid of the food control work. Mr. Abbott attended a meeting of that committee in Mr. Astor's office on Nov. 21, at which time there was a general discussion of the subject. The committee, it is believed, will make a report commending the work that is being done to unify, and co-ordinate the work of the federal and state officials. The suggestion on which the committee on standards and others engaged in the co-operative work is based, namely, that there should be such an understanding between the officials of the federal and the state officials appeals so strongly to men who have been trying to make the Civic Federation a real force in public affairs, that such a report from the Astor committee is exactly what might be expected.

There is everything to encourage and nothing to discourage in the work thus far done by the Office of Co-operation. There is nothing to indicate that any effort will be made to base rulings as to the meaning of food and drug laws on the divisions that exist in the food and drug trades, very few of which go to the question as to whether the article is harmful or otherwise. If the attempts at food and drug control had always been made on broad lines, there would now be a much greater public interest in the subject instead of a suspicion that somebody was trying to "put something over" every time a proposal was submitted.

The utter foolishness of the row and rumpus that took place a few years ago is shown by the fact that P. D. Cronin, of Solicitor Caffé's office is spending much of his time traveling about the country giving help to the district attorneys in the prosecution of cases under the food and drugs act. The fact that a lawyer is needed to enforce the law shows the foolishness of the contention made during the row that the placing of a lawyer on the food and drug board was for the purpose of emasculating the law and giving the food "dopesters" full license to go ahead with whatever they planned, regardless of the law.

The enforcement of the law, now as then, is largely a matter for the lawyers, with the chemists ready to supply facts to uphold the theories the prosecuting officers formulate as plans for bringing offenders to punishment. Dr. Alsberg's men are furnishing facts and the district attorneys, with the help Mr. Caffé's office furnishes, are applying the lash of the law where it is most needed. The chemists alone cannot enforce the law because they do not know how to use the facts they have in their possession. They sometimes have a hard time distinguishing between facts and opinion gained from the work of others.

ROASTERS FAVOR COFFEE BOARD.

At a recent meeting of the New York branch of the National Coffee Roasters' Association the following resolution was adopted:

Resolved, That the New York branch favors the establishment, by the United States Department of Agriculture, of a grade of green and roasted coffee for importation and interstate shipments and that the department be asked to consider the advisability of appointing a coffee board, similar to the existing tea board and with corresponding power.

COFFEE 108 YEARS OLD.

A sample of Mocha coffee 108 years old and still retaining its aroma, it is claimed, is in the possession of A. C. Ireland, of Middletown, N. Y. This coffee was imported into Salem, Mass., in 1805, and was given in 1848 to Ezra Wheeler, of New York, a wholesale grocer and importer of teas and coffees, who in turn presented it to Mr. Ireland, who was a partner in this old firm in 1875.

FLOUR, SPICE AND CONFECTIONERY MANUFACTURERS

Have you adopted the Rawley Coupon System? Lithographed Coupons at $3\frac{1}{2}$ cents per hundred will be furnished and all you have to do is to insert one in each package, with this done your trouble ends, as the coupons are returnable to us. With a certain number of these coupons and a small amount of money first-class premiums, consisting of 260 useful articles for selection, will be mailed to your patrons. These premiums are purchased in large quantities, enabling us to give them at very low prices. In fixing the prices of our goods, we used as our guide catalogues of the great mail order houses, cutting their prices 10%; in addition to this our coupons obtain 25% discount, making a total of 35% off the mail order prices. Your business will increase by the demand for your goods due to the use of these coupons, which have a purchasing value. Write for full information. J. P. Rawley Co., Washington, D. C.

Adv.

Please Your Palate AND Protect Your Health

You do both at the same time when your meal is graced with

Meadow Gold Butter

It is scientifically churned from the purest of cream and every ounce of it is

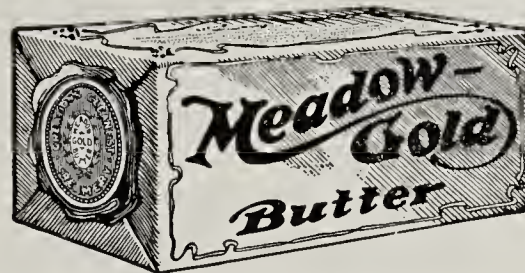
Pasteurized

Insist on having Meadow Gold Butter.

SOLD BY GROCERS

Fox River Butter Co.

Chicago



WE can supply free a limited number of copies of reports by the Tri-State Laboratories on characteristics of butter dishes.

A report showing food waste by absorption on part of the container has just been issued. Reports showing results of chemical and bacteriological analysis will be produced by the Laboratory in the very near future.

Food control officials and others interested in sanitation and accuracy in the dispensing of all bulk foods by retailers will find these reports vitally interesting.

If you want one or all of these reports, address

Maple Dish Association

Produce Exchange

Toledo, Ohio

Illinois Correspondence

(From Our Staff Correspondent.)

STATE WINS IN EGG CASE.

A jury in Judge Mahoney's court, Chicago, returned a verdict in favor of the State Food Commission in its suit of condemnation of fifty cases of eggs. The eggs were claimed by the Perfection Egg Company, 226 W. Superior street, makers of dessicated and frozen egg. The eggs in question were shipped into Chicago in cases marked "For manufacturing purposes only," or "Rot spots." It was the contention of the state that these eggs were the "rejects" from the sorting-out process in the country; that the eggs were so labeled as to evade the national and state food laws; that the labels on the cases indicated that the eggs were to be used for other than food purposes; that the Perfection Egg Company was intending to use a large part of these eggs for food products.

The Perfection Egg Company contended that it intended using only the good eggs. But judging from the testimony of the state's witnesses and of the Perfection Egg Company's, the latter concern called eggs "good" which the jury did not consider fit food.

This is the second time a jury has found in favor of the state, and against these eggs. After the first verdict a new trial was granted by Judge Jarecki.

Efforts have been made to circulate the report that the State Food Commissioner was seeking to destroy good food. On the contrary, his object is to conserve food; he is trying to prevent the egg from becoming rotten in the first place rather than to conserve the rotten egg. The rotten eggs should be sent back to their source, and not shipped to the place of consumption.

FLOUR CONDEMNED.

Four hundred and fifty sacks of flour claimed by Viviano Bros., 2148 Canalport avenue, Chicago. This flour was ordered condemned by the court as food for the reason that it was adulterated with a filthy animal substance. On giving a bond for \$1,500 the court permitted the firm to sell condemned flour for paste. Viviano paid \$1,350 for the shipment.

FOOT AND MOUTH DISEASE RECOMMENDATIONS.

THE Illinois Commission makes the following recommendations on the subject of foot and mouth disease:

"Foot and mouth disease, also known as Aphthous Fever, is an acute and highly infectious and contagious disease of cattle and other domestic animals, the most characteristic features of which is the eruption of vesicles on the mucous membrane of the mouth and on the skin between the toes and above the hoofs. The vesicles break, forming cankers and ulcers, accompanied by salivation, great tenderness of affected parts, loss of appetite, lameness, emaciation and diminution of milk secreted."

"In the early stages, or in a mild attack of the disease, the milk may present only a few abnormal characteristics, such as the falling of the specific gravity to 1023-1025 and the reduction in the quantity of sugar and casein. When the disease is fully developed, or about the third day, the milk invariably contains inflammatory products of a very pronounced character, and the quantity of milk is greatly reduced. Cows affected with the malignant form of the disease lose practically all of their milk, but if the disease is mild in character the decrease will be from one-third to one-half of the usual yield."

The milk becomes thinner, bluish and low in fat. If the udder becomes involved the milk becomes slimy and is yellowish and viscous like colostrum. It may contain blood and deposit a sediment on standing; the cream layer is thin and of a dirty color. Sometimes no cream layer is formed, the milk appearing uniform but slimy, and possessing a bad odor and repulsive, rancid taste.

The disease is transmissible to man in a mild form by drinking raw milk or buttermilk or eating butter or cheese from diseased cattle, and also, though rarely, from the secretions or other infected material through abrasions in the skin.

Children may be infected by drinking raw milk during the time the disease is prevalent. The disease giving rise to

about the same symptoms as are observed in animals. The death rate of children attacked by the foot and mouth disease has been about 8 per cent.

The "germ" causing the disease has never been isolated, but "is known to lose its virulence by being heated to 122 degrees F. for fifteen minutes; by being heated to 158 degrees F. for ten minutes; heating to boiling destroys it at once."

The following disinfectants destroy the "germ" in one hour:

1. Good whitewash.
2. Solution of carbolic acid, 1 per cent.
3. Solution of washing soda, 3 per cent.
4. Hydrochloric (muriatic) acid, 1 per cent.

The "germ" is not easily killed by cold and has been known to remain active after being placed in a refrigerator for one month.

As a means of safe-guarding the milk supply of the state as well as for the protection of the dairyman and his herd, the Commission makes the following recommendations:

Do not visit farms or districts where the disease is prevalent or suspected.

Do not purchase feed or bedding from infected districts.

Do not use feed which is liable to lacerate the mouth.

Keep dogs tied up.

All stray animals, including birds and pigeons, should be killed.

Do not permit visitors other than officers or veterinarians to inspect your animals.

All buildings, feed lots, yards and equipment should be kept in a clean and sanitary condition. Drinking troughs should be particularly looked after.

Keep all live stock off the highways.

Wash and scald all milk cans as soon as they are returned to the farm.

Disinfectants such as bichloride, slaked lime, etc., that are liable to dry and crack the hoofs should not be used on the feet of animals.

If the disease is prevalent in your vicinity spray barns thoroughly either with compound cresol solution or a solution of chlorinated lime made according to the following directions:

Chlorinated lime.....	22 lbs.
Water	50 gallons.

Chlorinated lime, also called "chloride of lime," should be purchased only in sealed packages, as the bulk article soon loses its strength on exposure to air and becomes almost worthless. The water should be luke warm. Strain the solution before placing in sprayer. Spray the barn soon after the cows are turned out each morning.

If a case of the disease is noticed on your farm notify one of the following officers immediately:

Dr. S. E. Bennett, Chief Chicago Inspector, Bureau of Animal Industry, United States Department of Agriculture, Chicago, or Dr. E. O. Dyson, Illinois State Veterinarian, Union Stock Yards, Chicago.

W. SCOTT MATTHEWS,
State Food Commissioner.

"SEE AMERICA FIRST."

When Fred Mason of the Shredded Wheat Company and his family returned recently from a trans-continental journey in an automobile he said to those who welcomed him home:

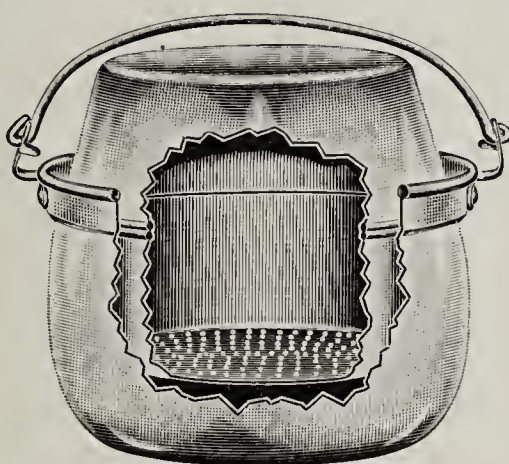
"See America first and after you have seen America you will have seen greater things in scenery and otherwise, than all Europe affords; we have had a grand tour but of all the places we visited there was none so grand as Niagara Falls. We have returned in splendid health and spirits and we are full to the brim of pleasant recollections of what we saw of this magnificent country. In our trip to the coast we went by the Lincoln highway, through Salt Lake City and we returned via the Santa Fe trail all the way. We visited Oakland, California, thence proceeded across the bay to Frisco and took a tour in our car along the California coast down to Los Angeles. At Oakland I inspected the site of the new western plant of the Shredded Wheat Company and went over the plans and specifications. Ground is to be broken for the Oakland plant on either January 1 or February 1 next. It is to be a very complete and modern establishment."

A High Class Aluminum 7 to 1 Combination Cooker for New Subscribers

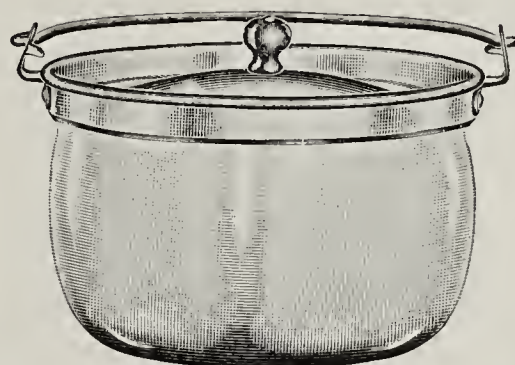
THE American Food Journal begs to make the following liberal offer, for new subscribers; and has contracted with a celebrated aluminum manufacturer for 10,000 of their practical 7-in-1 99½% pure aluminum combination cookers. Every housewife is familiar with the merits of pure aluminum kitchen utensils, as a saver of fuel, light to handle, sanitary and easy to keep clean. Will last a lifetime with ordinary care. The practical 7-in-1 cooker will do the work of seven kitchen utensils that are used in the kitchen every day, and if bought separately would cost \$12.00 at any retail store. Below are the cuts and descriptions of the 99½% pure aluminum practical 7-in-1 cooker, showing cooker in seven different practical utensils. To see one is to want one. To own one is to own the newest and most practical Combination Cooker in the Market.



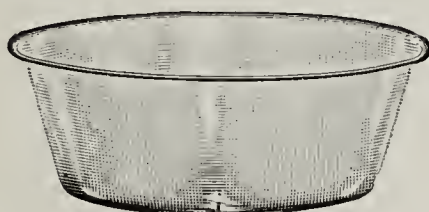
8 QT. ROASTER
Retail Value \$2.50



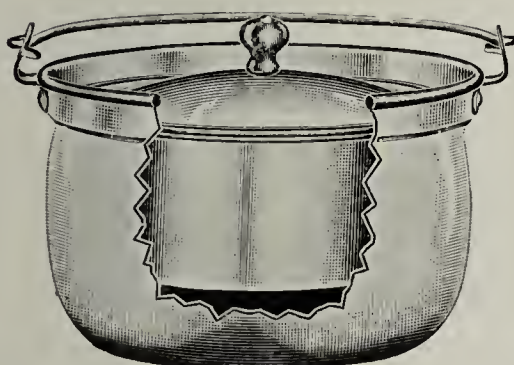
6 QT. STEAMER
Retail Value \$3.00



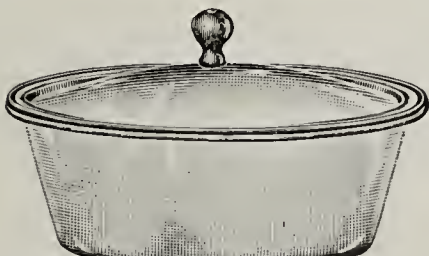
6 QT. BERLIN KETTLE
Retail Value \$2.00



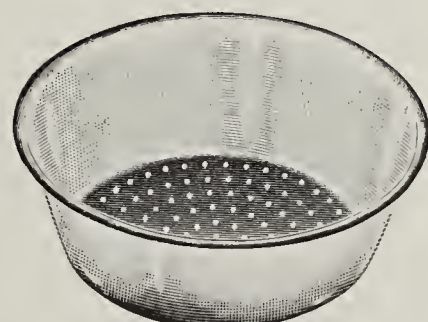
3 QT. PUDDING PAN
Retail Value 75c



3 QT. CEREAL COOKER
Retail Value \$2.00



3 QT. CASSEROLE
Retail Value \$1.00



3 QT. STRAINER
Retail Value 75c

On receipt of \$3.00 for the subscription of the American Food Journal for 2 years, this practical 7-in-1 99½% pure aluminum cooker will be yours, sent by parcel post prepaid.

Indiana Correspondence

(From Our Staff Correspondent.)

INDIANAPOLIS, Nov. 28.—As in other states of the Union the predominant factors in the food world in Indiana this month were two things—foot and mouth disease among the Indiana cattle and Thanksgiving. The former seriously retarded marketing facilities and the latter, of course, stimulated the same channels of activity.

The foot and mouth disease opened with lightning-like rapidity throughout many counties and quarantine after quarantine went into effect. Had these quarantines related only to movements of cattle food product men and consumers would not have suffered so much—but the embargo went on milk, cream, hay, butter, poultry—in some instances—and practically all other farm produce. The result apparently was a greatly lightened market and a decided tendency on the part of Mr. Ultimate Consumer to stay away from his meat stall in the market—although state health officials declared there practically was no danger at all to human beings should they eat infected foods, if those foods first had been well cooked. The idea of the possibilities of eating such foods, however, made buyers slow to purchase and prices, in many instances, naturally went down. Due to this reason and to the fact that hens were not laying in Indiana this month, the price of poultry as food went down to perhaps the lowest mark in years in Indiana. Thanksgiving turkeys were plentiful and sold at the same price that prevailed a year ago. Chickens were much cheaper and every other edible on the Thanksgiving list probably was a bit below the standard of last year.

A big movement to aid the suffering Belgians, with shipments of Indiana flour, has caused a slight tendency towards a higher price level in that commodity, some say, though it has not been announced yet. Carload after carload of the flour is being sent by Indiana contributors to the starving Europeans.

The foot and mouth situation affected all state departments, particularly the pure food and drug department of the state board of health. The monthly bulletin from this department explained the condition and the extra work it entailed, as follows:

"A serious outbreak of the so-called foot and mouth disease appeared in St. Joseph and Laporte Counties (it appeared in many other counties later) early in October and made it necessary to concentrate the work of the inspection force in northern Indiana where it was able to do excellent service in organizing the force necessary to control the epidemic. On account of this service but 496 inspections were reported during the month. Six places visited were found to be in excellent condition, 285 were good, 180 fair, 22 poor and but 3 bad. Seventy-one canning factories were visited. Of this number 2 were in excellent condition, 24 were good, 32 fair, 10 poor and 3 bad. Of the 119 grocery stores visited, 2 were in excellent condition, 85 good, 31 fair and one poor. Conditions in meat markets, bakeries and hotels were for the most part satisfactory, but few places being reported as in poor condition and none as bad.

"During the month 16 condemnation notices were issued against canning factories, grocery stores, meat markets and restaurants. In 13 cases because of improper construction and as well in 13 cases for unsanitary condition.

"But three prosecutions were brought during the month, one because of the sale of misbranded food, one a misbranded drug, and one an adulterated drug. The fines and costs imposed amounted to \$57.20.

"During the month of October special work in connection with the foot and mouth epidemic occupied much of the time of the laboratories. But 40 samples of food were analyzed and of this number 34 were reported as legal; two maple syrups were found to contain an excess of moisture; two vinegar samples were low in acid content; 4 honeys sent in on suspicion proved to be genuine.

"Of the 15 drug samples analyzed all were pure and properly labeled."

H. E. Barnard, State Food and Drug Commissioner, has just completed a part of the annual report from the department and it shows that an unusually large number of prosecutions for pure food violations occurred during the year throughout the state. Unusually large is perhaps too strong a description of the condition, because the total number of prosecutions—sixty-six—really is small compared to the totals of several years ago, before the food work got thoroughly under way.

There were many types of violations of the law and the state department has issued a bulletin showing the total number of persons arrested and fined and the character of each offense. The table follows:

Character.	No.
Dirty milk and cream	8
Milk containing added water	4
Milk and cream below standard	4
Exposed foods	7
Maintaining unsanitary conditions	11
Ice cream below standard	1
Misbranded soft drinks	2
Misbranded beverage	7
Cider containing benzoate of soda	1
Benzoate in catsup	1
Short weight potatoes	1
Adulterated food	1
Adulterated lard	1
Adulterated butter	1
Rotten eggs	2
False advertising	1
Grape juice containing sulphites	1
Misbranded foodstuffs	3
Misbranded drugs	2
Drugs below standard	3
Cereal in weiner sausage	1
Starch in sausage	1
Salicylic acid in pop and soda	1
Misbranded vinegar	1
Total	66

Indiana canners, who suddenly have come face to face with the realization that the co-operation of the state department is intensely necessary to profitable operation of their business, are commenting frequently on an address concerning the industry, given by Mr. Barnard at the convention of the canners here this month. The address follows:

SUGAR-SACCHARINE MIXTURE.

Former State Food Commissioner Wilbur F. Cannon, of Colorado, who once belonged to the "ultra" group of pure food commissioners, has had a change of heart respecting the use of saccharine. In an interview in the Denver Post, Mr. Cannon advises the use of glucose and saccharine in lieu of sugar.

"Glucose is cheap and saccharine is 550 times as sweet as sugar," said Mr. Cannon, "and a combination of the two forms a splendid substitute for sugar in preserving. In fact, they are used to a large extent commercially. The glucose is entirely innocuous, and while it lacks in sweetness, that defect can be overcome by the addition of a small amount of saccharine.

"Contrary to popular belief, there is nothing harmful about saccharine, and its use has not been forbidden by the government, as many persons think. The only regulation under the pure food law is that when it is used in manufactured goods its presence must be noted on the label. I have used a lot of it myself and have experienced no ill effects, and the fact that it is prescribed for diabetic patients and in other ailments, such as gout, shows that there is nothing deleterious in it.

"By using a very small quantity of saccharine with enough glucose dissolved in water to the usual consistency of the syrups used in making preserves, the housewife can declare her independence of the sugar trust and find that she has made as good a quality of preserves as if she had bought the \$7 sugar the grocers are offering her."

FOOD PRODUCTS.

Henry C. Sherman, Ph. D., who is the author of a number of books on food chemistry, has published a work through the Macmillan Company on "Food Products."

The plan of the book is to devote a chapter to each important type of food covering an account of its production and preparation for market, with such brief statistical data as will indicate the relative economic value of the industry, the proximate composition and general food value, questions of sanitation, inspection and standards of purity, etc. In short, the work deals in a scientific way with the food we eat from the field to the table.

This work should make for itself a permanent place in the field of food products and their value.

WHY SACCHARIN WON

The Long, Contested Suit of the Monsanto Chemical Works of Saint Louis, Manufacturers of Saccharin, Is Finally Decided in Its Favor.

The Supreme Court of the State of Missouri in handing down its *unanimous* decision that Saccharin is not deleterious to health, and declaring null and void the statute prohibiting its use recognized the principle that the amount used must be considered. This, the Supreme Court of the United States also did in its decision in the famous Bleached Flour case.

An excessive use of anything is harmful, whether it be sugar, salt or water.

SACCHARIN is much more desirable than sugar as a sweetening agent for soft drinks from any view point: (First)—Healthfulness; (Second)—Economy.

The Food Commissioner of the State of Tennessee declared in a recent statement, that "all soft drinks containing as they do, sugar, are bad for the stomach, etc."

This is a strong argument for SACCHARIN. In using SACCHARIN the danger from the use of sugar is eliminated, and the infinitesimal amount of SACCHARIN that is required to sweeten cannot possibly be harmful to any one, either adults or children.

Any physician will tell you that we are all eating too much sugar. When it is considered that practically 20% of the people of the country are either afflicted with Kidney troubles or have a tendency to be so afflicted, and that sugar is a known poison to such people,—the majority being unconscious of the fact—it leaves no room for doubt that SACCHARIN is the proper and most desirable sweetening agent for soft drinks.

Use SACCHARIN to sweeten and do not hesitate to declare its use on the label. **Such declaration stamps your goods as being healthful.**

MONSANTO CHEMICAL WORKS

Manufacturers of Saccharin

ST. LOUIS

Branch: Platt and Pearl Streets, New York

Massachusetts Correspondence

(From Our Staff Correspondent.)

THE Massachusetts Corn and Apple Show was held in Worcester December 1, 2 and 3.

The resumption of shipments of potatoes from Canada to the New England states has recently been allowed by the Department of Agriculture under certain conditions. The Department imposed this embargo on the shipment of potatoes from Canada to New England because of the prevalence of the powdery scab. The Dominion Government until quite recently prohibited the shipment of potatoes from the state of Maine into Canada but later modifications were made in regard to this ruling, and the United States Department of Agriculture followed with similar concessions.

The "foot and mouth" disease has for a number of weeks made Commissioner Walker's office of the Bureau of Animal Industry, Boston, a place of ceaseless activity. The disease is reported now to be under control although a great deal of work still remains to be done. The announcement has been made that the next legislature would be asked to appropriate at least \$100,000 to cover the state's expenses in the fight to wipe out this disease in Massachusetts. Already more than 300 cattle, ranging in value from \$100 to \$150, have been slaughtered and at a cost to the state of more than \$25,000. Besides the force the state has employed to take care of this disease the Federal Government has a number of squads actively engaged in fighting it. Three disinfecting squads are now at work in Massachusetts.

Some of the farmers whose cattle had been slaughtered express anxiety over the prospect of getting their money, and many others, especially in the western part of the state, are expressing concern over the fact that the cattle are compelled to remain out in the pasture while snow lays on the ground. In a number of places they have been allowed to drive their cattle under shelter providing no symptoms of the disease have been discovered.

At the last monthly meeting of the Boston Retail Grocers' Association the idea of holding another pure food show in 1916 was discussed, but the matter was not definitely decided. It was brought out at this meeting that the net profit from the pure food show just closed was between \$8,000 and \$10,000.

Rather a unique demonstration of the thoroughness and activity of the Massachusetts Commissioner of Weights and Measures, Thure Hanson, and his force of assistants, was contained in a recently published photograph of one corner of Commissioner Hanson's office. It was an exhibit of confiscated weights and scales and measures.

Learning that the marketmen in several sections of Boston were becoming very careless concerning the weighing and measuring of food products Commissioner Hanson, with a number of state deputies, made a raid on retailers in three different sections of Boston and the seizures of scales and measures kept one of the inspection automobiles fairly busy carrying confiscated scales and measures to the state house.

The new Municipal Market at the corner of Shawmut Avenue and Castle street was also visited and dealers there were warned that fruits, vegetables and nuts must be sold by dry measure, weight, or numerical count and not by the bag or basket.

Street trucksters and Italian fruit vendors were also held up in many instances and their weights and measures examined and where defective or incorrect seized. Nearly one hundred of these were seized and many of the hucksters apparently were unaware that they were violating the law.

The big time came in the evening, however, when Commissioner Hanson's force was joined by that of Charles B. Wooley, sealer of weights and measures for the city of Boston. This force formed into squads of three and from Mr. Wooley's office in the City Hall Annex proceeded to the busy Saturday evening markets in Haymarket Square, and Faneuil Hall. Carrying in their pockets testing apparatus the inspectors carefully watched all scales to see if the marker started from the zero point and also examined them to see if they bore the city seal. One computing scale was found to be a half pound out of the way. Saturday night purchasers were greatly interested in the inspectors' work and they invariably had a crowd around them whenever they stopped to test a scale or measure.

This is, by the way, the first time in recent years that the state authorities and deputies from City Hall have co-operated

in this manner. The Boston raid is merely a part of the statewide campaign that Commissioner Hanson is carrying on.

"I am determined," he declared, "that the laws shall be obeyed. We have six inspectors' automobiles and we are covering every city and town in the Commonwealth. Friday evening our men stood on the corner of Boylston street and stopped a great many taxicabs which were proceeding without lights on their meters. Their numbers were taken and these violations will be considered in my office. Meat and produce dealers are not the only ones who have been found violating the laws. We have seized a great many druggists' weights that were defective."

BOSTON CORRESPONDENCE.

Boston, Mass., Nov. 30, 1914.

WITH a coast line approximating 700 miles in length, the waters teeming with edible fish of all kinds, and with transportation facilities which insure the delivery of this abundant food supply in good condition in any city or town, the inhabitants of Massachusetts need not worry over the problem of the cost of living. As far back as 1784 cod-fishing was the chief industry of Massachusetts and the members of the great and general court recognized the fact by causing a wooden effigy of a cod fish to be hung in the chamber of the House of Representatives as symbolizing the great industry which each year seems to add greater wealth to the commonwealth, and possibly with the mental reservation that its presence might inspire the members to greater efforts to protect the public health in the framing of laws. Be that as it may, the commonwealth of Massachusetts has been a pioneer in legislation pertaining to matters affecting the public health. Food and drug supplies, water supplies and the disposal of sewage have all been placed under the jurisdiction of the state board of health and no municipality or individual has been permitted to handle or dispose of either commodity except under rules and regulations made by the said board and rigidly enforced.

Within the past few years the feeling had grown that the board had become too conservative and attempts to force a reorganization were made from year to year; only to fail. This year, however, under the leadership of Gov. David I. Walsh, a radical change has been made. Hereafter the interests of the public health, instead of being divided among seven members, will be centralized in one man. Following is the text of the bill which brought about the upheaval, and which was approved by Governor Walsh on July 7, 1914—the last day of the legislative session:

Massachusetts, like other states, is having her troubles with the foot and mouth disease. Thus far \$25,000 worth of infected cattle have been slaughtered in the effort to stamp out the disease, but the appearance of new cases shows that it has acquired a stronger foothold than was at first supposed. The disease was brought into the state by a herd of cattle sent from New York to George Henry of Amherst. One isolated case made its appearance on Deer Island, where Boston's penal institution is located. No new cattle had been shipped to the island, so there is much speculation as to the method by which the disease was transmitted.

Sealer of Weights and Measures Hanson is waging an energetic warfare on peddlers and conscienceless dealers who have been supposed to be reputable, but who have been found to be giving "short" weight. In the early part of November he seized 200 weighing machines which had been "doctored." It is only fair to state that by far the greater percentage of these false weights were being used by peddlers, most of whom were of foreign birth, but one machine, which recorded a "short" weight of five ounces, was found in the market of a supposed reputable dealer. So great was the popular rage when this condition of affairs was revealed that an extra squad of police was sent into the market district to preserve order.

Milk and rum have been the two commodities which have received the greatest amount of attention from Massachusetts legislators in the past few years and the former has had a strong lead each year. The Massachusetts farmer is in a quandary. Tradition, handed down from generation to generation, tells him that the milk industry is a paying industry. The hard, cold facts of the present day convince him that tradition is wrong. He loses money on every quart of milk he sells. Fifty years ago every Massachusetts farmer was a milk producer.

A manufacturing confectioner was experiencing difficulty in finding a satisfactory cream center for his chocolates. Various prepared creams were tried, which did not satisfy him either as to quality or cost.

The problem was brought to the laboratory, where an entirely satisfactory product was developed which could be made at less cost than any of the special preparations he had heretofore used.

Every food manufacturer has some similar problem. It may not be cream centers. It may be the development of salable material from waste or by-products.

Manufacturers desiring to improve their products, utilize waste materials and lower the cost of production should consult with us.

NO CHARGE FOR PRELIMINARY CONSULTATION

LEDERLE LABORATORIES

Sanitary, Chemical and Bacteriological Investigations
39-1/2 West 38th Street NEW YORK

Canned Salmon

ALL GRADES ALL SIZES

Largest Distributors
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KELLEY-CLARKE CO.

SEATTLE, U. S. A.

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DEPARTMENTS: Food, Commercial, Medical, Milling and Baking.
Expert Staff of Consultants. Court and Medico-Legal Work.

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Consulting Chemist and Engineer

Scientific Expert Before the Courts


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BON BON

The Original Alum Baking Powder

Never surpassed in wholesomeness, leavening or keeping qualities. Immense output. Low price.

J. C. Grant Chemical Co., E. St. Louis, Ill.



MONEYWEIGHT Scale Co.
GENERAL DISTRIBUTORS FOR
The Computing Scale Co.
Dayton, Ohio.

THE FIRST AND FOREMOST
BUILDERS OF COMPUTING SCALES

GENERAL SALES OFFICE
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ALWAYS OPEN TERRITORY TO FIRST CLASS SALESMEN

NATURAL FRUIT FLAVORS

FOR USE OF MANUFACTURERS

C.X.C. LEMON, C.X.C. ORANGE, C.X.C. LIMES

Soluble, Concentrated, Terpeneless

FOOTE & JENKS, Sole Mnfrs., Jackson, Mich.

Victor Chemical Works

New York Chicago St. Louis

Phosphates, Baking Powder
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"GOOD-BYE FLY"

According to Department of Agriculture Bulletin No. 118: Apply 0.62 Borax to every 10 cubic feet of manure. Apply Borax particularly around edges; sprinkle with 2 or 3 gallons of water. This treatment should be repeated with each addition of fresh manure. Flies lay their eggs in fresh manure. Borax prevents their hatching.

Don't use more Borax than recommended above.

B. HELLER & CO.

THE PLANT BEHIND OUR PRODUCTS



CHICAGO, U.S.A.

MICHIGAN CORRESPONDENCE.

(From Our Staff Correspondent.)

THE hoof and mouth disease has occupied the center of the stage, so far as the Michigan dairy and food department has been concerned during the month of November. Food Commissioner Helme and one of his deputies have worked continuously in co-operation with the Federal authorities and the State Live Stock Sanitary Commission to eradicate the disease.

The activities of the dairy and food department in regard to the disease has been confined to the inspection and control of the milk and other dairy products coming from the infected areas, as well as seeing to it that none of the cattle slaughtered should by any chance find its way to the market. When the epidemic first started the dairy and food commissioner issued the following warning to the creameries and farmers:

The outbreak of the foot and mouth disease in Michigan, if it attacks dairy herds in the state, promises untold and irreparable damage to the dairy industry.

In Berrien county it was found that many herds of hogs were afflicted with the disease before any symptoms were shown by the cattle on the same farms. This was traced to the fact that skimmed milk received from creameries receiving whole milk was sent back to the farm to be fed to hogs. The milk from one infected herd sent to the creamery would thus infect the hogs of all farmers sending milk to that creamery. The hogs would in turn infect the cattle.

Creameries are hereby warned not to send back to the farm any skim milk unless it is first pasteurized, as long as the disease prevails in the state.

Farmers are warned not to feed skimmed milk to their hogs that comes from any creamery unless it has first been heated to the boiling point.

The widespread prevalence of this disease, caused by the shipment of feeding cattle from Chicago, makes all points in the lower peninsula dangerous if skimmed milk is fed to hogs. The same argument applies to whey returned from cheese factories.

Compliance with these regulations, until the disease has been stamped out is of the utmost importance to the creameries and cheese factories of the state and their patrons if the dairy herds are to be spared the frightful ravages of this disease.

Inspectors of this department will see that these regulations are enforced until the removal of the quarantine.

It is thought that the authorities have the epidemic nearly under control. In all the quarantined counties no new outbreaks have occurred in the past 10 days. A small area became infected in one of the western counties of the state during the past week, but all infected herds have been killed in this section and no evidence has been found that the disease has spread.

A conference of the federal and state authorities will be held in Lansing Dec. 1 to see if some steps cannot be taken to release some of the cattle and sheep from those parts of the quarantined counties where no infection has as yet appeared. It works considerable hardship on many of the stock raisers, residing in non-infected areas, who have their stock all ready for market, but cannot ship them owing to the quarantine placed on the whole county. Many have no shelters provided for their stock and with winter rapidly approaching, unless some action can be taken to permit these stockmen to dispose of their stock a large financial loss will surely occur. In cases such as these the federal or state do not reimburse the stockman for his loss.

At this writing about 2,000 cattle, 4,000 hogs and 300 sheep have been slaughtered and buried in quick-lime.

Inspectors of the food department have recently made a second visit to Detroit and as a result condemned and seized 300 short measures. They also seized 3,500 one-gallon cans of pumpkin found in a storage house. This material had been through a fire and was awaiting sale. The cans were not labeled and many swells and leakers were found in the lot. They were condemned and seized.

In the northern peninsula of the state one of the food inspectors has found that the glass milk bottles are short measure. Heretofore the glass milk bottle has been taken as almost standard for quarts, pints and half-pints, and few housewives questioned its reliability. But it was discovered that all pints were not pints and all quarts were not quarts. Bottles collected from a number of the stores were found to be as much as five cubic inches short of a full pint measure, each bottle being about one-eighth pint short.

MINNESOTA CORRESPONDENCE.

(From Our Staff Correspondent.)

S. T. PAUL, Nov. 30.—The Minnesota State Butter and Cheese Makers' Association held its twenty-first annual convention at the Merchants' Hotel here during the week of November 4th. The gathering was pronounced the most successful and beneficial convention the association has ever held. About three hundred dairymen were still in attendance at the closing sessions.

"Minnesota dairy farmers could make six million dollars more annually if the state would enforce, or if they would adopt a grading system." This was one of the conclusions of E. J. Holmes of Braham, Minn., a creamery operator and recently appointed state dairy inspector. The subject of his address before the convention was, "Paying for Cream According to Quality."

"The buttermaker who buys his cream from the dairy farmer," said the speaker, "has to sell his product by standard grades. This would be to his advantage and it would also be to the advantage of the farmer if he would go to the little extra trouble necessary to sell his cream in the same way. There are indications that the buying of cream soon will be put on a basis of quality instead of quantity alone."

"For example, there is one co-operative creamery which sells butter to a railroad dining car service, and it has proved the great value of buying the best and selling the best. Its cream comes from inspected cattle, it is handled by men who are inspected and its grade is high. The result is that this creamery gets six cents a pound for its butter above the market price."

"Milk and cream should be graded for sale just as barley and wheat are. I think that two grades would make cream more salable and make it bring higher prices. Anything grading above 35 per cent, by the Babcock test, should be called high or fancy. Thin, slightly sour milk grading lower than that might go into a second grade for second-grade butter-making. Milk which could not conform to either of these standards should be fed to the calves or hogs."

"My own views on this matter of grading are well supported by state and university experts. I think the day of compulsory statewide grading is coming, and it is going to be a good day for all."

"There are one million one hundred twenty-five thousand cows in this state. With butter at twenty-seven cents, their product at present is worthy fifty-three million dollars. But at least six million dollars could be added to this by the grading system, because it would encourage farmers to use all precautions with their stock and their product in order to get fancy prices."

Governor Eberhart presented diplomas to the winners in the six months' butter contest and the prizes awarded in the convention contest. In doing so he reminded them that these prizes are a mark of excellence in their work. He then presented the prizes as follows: Convention awards: Highest of all classes, Oscar Aase, cream class, Kenyon; second, cream class, Emil Schudeiske, Carlos.

First, whole milk class, Emil O. Oman, Delano; second, J. A. Peterson, Chicago City.

First in cheese, C. G. Stromback, Kenyon; second, J. Parenteau, Mantonville.

The following were awarded diplomas by the state dairy and food department:

Sensius Nelson, New Prague; H. P. Jeppeson, Garden City; A. T. Parsons, Traverse; A. J. Ruttum, Hendricks; A. H. Dannheim, Nicollet; Soren Kristensen, Kiester; Fred W. Dehn, New Ulm; J. W. Engel, Pratt; Peter Kvale, Emmons; Alfred Camp, Owatonna; Sam Nelson, Twin Lakes; Gust Knudson, Armstrong; Carl P. Olson, Litchfield; G. W. Hagberg, Cokato; E. G. Oman, Delano; F. W. Hedke, Norwood; W. E. Redman, Montrose; W. H. Denny, Cologne; Henry Erickson, Hutchinson; R. J. Rick, Norwood; H. H. Lunow, Mayer; Bertel P. Jergens, Litchfield; O. W. Olson, Hawick; H. L. Stenberg, Atwater; C. C. Thoen, Westport; J. Hanson, Clarissa; E. E. Dennison, Beltrami; G. W. Peterson, Shafer; E. E. Miller, Zumbrota; William Cullen, Zumbrota.

H. E. Schuknecht of Chicago, formerly a well known creamery man of Albert Lee, traced the history of the association from its birth to the present and congratulated the members on the wonderfully successful organization.

He also gave the members some inside information on the first attempts at pasteurizing butter. He declared himself a firm believer in the pasteurizing movement, although he said he knew that his views are not shared by all of those engaged in the industry.

RUMFORD

The Wholesome Baking Powder

A scientific preparation being the result of extended research by the celebrated chemist Prof. E. N. Horsford, for many years Prof. of Chemistry in Harvard University.

Dietetically speaking, Rumford is without fault; as a leavening agent it is perfect; as a keeper it has no superior.

DOES NOT CONTAIN ALUM

Its Purity is Unsurpassed.



A Breakfast, Luncheon and Dinner Delight

SULZBERGER'S MAJESTIC HAM & BACON

Mild — Sweet — Deliciously Tender

Carefully selected, carefully cured, and thoroughly smoked over hickory wood fires.

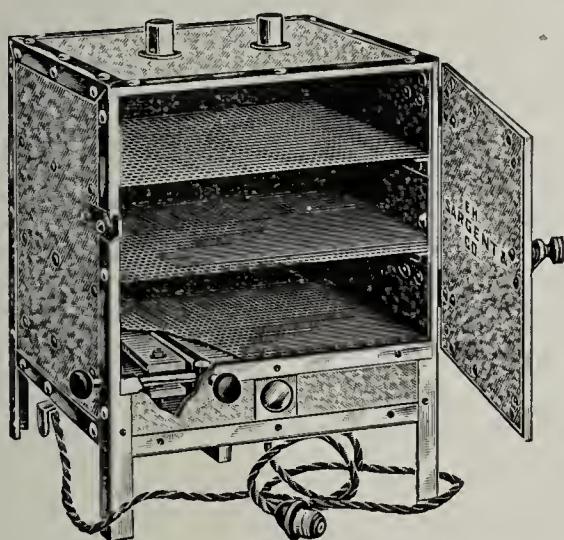
At all first-class dealers. Look for the orange parchment wrapper.

SULZBERGER & SONS COMPANY
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Sargent's Electric Drying Oven

With Automatic Temperature Control
(Patented Jan. 6th, 1914.)



THE demand for a constant temperature drying oven at a moderate price has led us to put upon the market this desirable piece of apparatus. Electrically heated and automatically controlled, the oven may be set for any temperature between 70°C and 150°C, and is guaranteed to maintain it within 1°C.

*Adapted for and used in food laboratories
with excellent results.*

PRICE complete with six-foot cord, plug, thermometer and directions for operating **\$25.00 net**

*Descriptive pamphlet on application.
Our complete catalogues furnished upon request.*

E. H. Sargent & Co.

Manufacturers, Importers and Dealers in Laboratory Supplies
125-27 W. Lake St., Chicago



Gail Borden EAGLE BRAND CONDENSED MILK

For three generations has been the World's Leading Brand for Infant Feeding. For Sale everywhere; always uniform in composition; easily prepared; economical. It provides a safe, wholesome substitute when Nature's Supply fails. Send for Booklet and Feeding Chart.

BORDEN'S CONDENSED MILK CO.

ESTAB. 1857

Leaders of Quality

NEW YORK



NEW YORK STATE CORRESPONDENCE.

(From our Staff Correspondent.)

Albany, N. Y., Nov. 30.

The New York Department of Agriculture, which is charged with the enforcement of the pure food laws of the state, is at present engaged in the establishment of a principle relative to the labeling of foods. The cases under litigation are with reference to feeds for stock, but the principle involved is the same as for foods for human consumption, and if the state loses in this the same notion will be held by dealers in food products. Such names as "Corno," "Molasco," "Oat-moline," and a series of such names might deceive a purchaser if registered, moreover some composition in which vanilla might be a part could be provided with a name as "Vanilo," and under the claim of certain dealers any number of harmless ingredients might be added to vanilla and the mixture be sold under the registered name selected. This would be a deception as the mixture would be an unknown quantity to the buyer who might think he was getting a flavoring worth his while. Therefore the test in the state of the ruling of the department relative to the registration of such names as might lead one to suppose a feed or a food consists of a certain ingredient, mainly, while it contains very little of that ingredient, and largely of others of a promiscuous mixture, is a test of much importance. The state has refused the registration of such names and a writ of mandamus has been sought to compel the department to provide the registration.

Curious conditions arise in the enforcement of food laws. One came to my attention today with reference to pure milk. A peddler of milk in the city had several cans of milk on his wagon when the inspector chanced to take samples. It was found that one can only was of illegal standard. Upon following up the matter it was found that the dealer had purchased a part of a can of milk of a certain party and had then turned into it ten quarts of milk from another source. This was the can from which the bad sample was taken, according to the statements made. As the peddler is the one really responsible he is asked to pay damages. At last the party who sold the milk to the peddler admitted that he put some water into the milk sold, and there seems a strong supposition that he is really the guilty party in the transaction. The legal technicalities put the peddler on the defensive and seemingly he must settle. Now can the state by means of the testimony of the peddler hold the man who sold the milk, taking into consideration the admission of the man who sold the milk that was watered? It seems quite possible that it can be done, and if this man does not come up and settle then the case will be tried, I think. Such are the clues that have to be followed up by departments charged with protecting the public from frauds in foods.

Benzoate of soda gets its share of attention still. The issue has not seen its final hearing, but the principle is well established in so many cases that officials are proceeding with a definite understanding. The New York department has a point just obtained which goes right along the line formerly marked out. At a big factory where large quantities of preserved products are put up for market, the chemist provided a bowl of a mixture of tomatoes in so badly decomposed condition that the official could hardly endure the smell. Samples were dipped out into several dishes and placed over jet flames. In one dish was enough benzoate of soda to make .1 of one per cent. In another it was one per cent, and in another vinegar and spices were used in the usual way. The latter mixture came out of the test in very good condition showing little or no effects of decomposition, but the other two did not change appearance or odor. In all cases the further decomposition was stopped, but with the benzoate it was not covered up, while with the vinegar and spices it was. The small amount of benzoate preserved as well as the larger, and the experiment of using a large quantity was only to show that such an amount does not destroy bad odors any more than a small amount does. It was argued from this that benzoate of soda in quantities not large enough to injure health is a useful substance to employ in preserving foods for the protection of health, while vinegar and spices can be employed to protect a decomposed product.

It is something of a question just now whether the State Department of Health can assume functions that have not been specifically delegated to it, in protecting the public relative to foods, particularly as the Department of Agriculture has been delegated to do this work. There is a Public Health Council, and it is assumed that this council can make laws that may supersede those of the legislature, or at least overlap those, and create a dual inspection of foods. This is being worked out with reference to the sale of milk in towns

and cities of the state. A permit from the local health department is required in all cases by the council where milk is sold for family use, and an inspection on the part of the local health officer is required at least once a year of all dairies where milk is produced for such sale. If an inspector from New York City has scored the premises, that is considered sufficient evidence that the premises are sanitary, and no further inspection is required; and the same is true in the case of any inspector under any Board of Health of the state, or of any health officer in any town or city; but if the inspection is made by the Department of Agriculture which has the duty imposed upon it by the legislature to make such inspections, and is supposed to have trained experts for inspectors, these inspectors are not recognized by the Department of Health. That a man, whose duties as a physician may be well performed, is specially qualified to decide on the proper way to manage a herd of cows, no matter whether he has always been a resident of a city or a village, when the trained experts of the farm are considered incompetent is interesting to say the least. There are two items involved: One is the competency of the parties to the proposition, and the other the legal question of the right to trespass upon the grounds and the duties of another body, undeniably authorized to perform the duties, and against which there can be no question of incompetency.

The Bordens have it over the other people when it comes to handling big lots of milk, and they are able to make as fine a showing of sanitary methods as any one can. They are now engaged in establishing a school where they will teach not only the methods of handling milk and inspections where it is produced, but will teach the technology of milk itself. This school has been temporarily located at Oxford in Chenango county, but it may be changed to some other locality later. There are one or two other places where the plants of the company are superior in some ways to the one at Oxford, but perhaps none where the quality of the milk is better from a sanitary point of view.

Ice cream gets but a moderate attention from official inspection, and the recent action of the state board of health practically ignores its existence. Meanwhile the public is cognizant of the fact that the quality is not of the best. Laws are needed to bring this commodity to a point where its composition as well as its sanitary condition will be better understood.

NEW YORK CITY CORRESPONDENCE.

NEW YORK CITY, Nov. 30.—Owing to the spread of the foot and mouth disease among cattle, Commissioner Huson of the State Department of Agriculture, issued an order that no cattle, sheep, goats or hogs should leave any farm in the state before Oct. 16. As the incubation period of the disease is from two to six days, live stock that had been exposed to the infection should show symptoms within that time. The stock yards in this city remained closed until Oct. 16. The slaughter houses continue in operation. Cattle shipped from states not quarantined have arrived in sealed stock cars under government supervision, and were unloaded directly at the slaughter houses.

In meat supply circles in the city it was asserted that there would not be a famine in meats, but in the next breath it was said there would be a shortage and that prices would go higher. Though no cattle or other live stock may be shipped from here, as the disease has been detected in Buffalo, Clyde and Seneca Falls, the dressed beef business may be carried on. This means a drain on the cold storage supply, which has been below normal since the outbreak of the European war. There is about a week's supply here. Greater New York consumes between 6,000,000 and 7,000,000 lbs. of flesh food each day. That is more than a pound a day for each person, but the figures include the supplies for hotels and steamships with which New York's allotment is charged. During the last week of October 11,461 cattle were killed in the New York district, which includes Jersey City, against 40,951 killed in Chicago. These figures show how dependent New York is on Chicago for beef.

According to custom house statistics, imports of Argentine beef in the last six weeks aggregated 18,900,000 lbs., with a wholesale foreign value of \$1,772,949. Most of this beef is in storage in this city. The Lamport and Holt liner Vandyck, captured and sunk by a German cruiser several days ago, had a large consignment of Argentine beef for wholesalers here.

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OHIO CORRESPONDENCE.

(From Our Staff Correspondent.)

COLUMBUS, O., Nov. 27.—Efforts to lift the state's important canning industry to the highest possible pure food excellence is to be continued by two new rulings. Hereafter all vegetables and fruits must be washed before being cooked or otherwise treated for canning purposes, and cans or other containers must be sterilized previous to the filling process. This follows upon a distinct reform that was put into force during the past season, that of requiring the washing of cans and containers generally.

The food department takes pride in the fact that although Ohio is the only state so far to require this last-mentioned precaution, its enforcement was a complete success. The facts with respect to this matter, as well as much other interesting material, are set forth in the annual report of L. G. Bingham, inspector of canneries, now in course of preparation. It shows that whatever opposition existed in the minds of manufacturers at the outset over the innovation of washing the cans, such attitude found no expression in the form of attempted evasion of the ruling. The two or three cases of violation were incidental, and the offenders were set right without the necessity of prosecution.

During the year 170 canneries were inspected, some of them a number of times. Nine new plants came into existence, 8 were discontinued, 5 moved into new buildings, and 2 were burned out, but have resumed business. The inspector views it as significant that of the 8 going out of business 5 were of the worst type. This illustrates the rapid elimination of the unfit, under stringent regulation, in all lines of food products. The inspector takes occasion to commend the co-operation he has received from canners and to express his encouragement as to the future welfare of the industry in the matter of high grading and consequent material prosperity.

The report will be issued in bulletin form for the benefit of the Ohio Canners' Convention, which meets in Columbus the second week in December. An explanation will be given in the document of a new method of scoring, or grading, to be adopted by the inspector. Blanks for making reports upon visiting a cannery will be in triplicate. When filled out by the inspector one copy will be left with canner and other sent in to headquarters, the inspector retaining the third. Each factor entering into the matter of sanitation will have a maximum per cent, all of them aggregating 100. The highest per cent will be given to the most important factor. The grading of the product will be based on the showing of these blanks at the end of the year. As the canner is given a record of the inspector's finding on the occasion of each visit, he will know just what record he is making and will be inspired to improve it.

While on the subject of canning it is interesting to state that the industry is making remarkable strides in Ohio in volume of output. It is believed that not a little of this prosperity is due to the growing reputation of product under good regulation. The Cummings Canning Company, with plants at Ashtabula and Conneaut, put up a million cans of tomatoes and a like number of cans of pumpkin during the past season. The Tom Corwin Company Lebanon claims the distinction of being the first cannery to make a shipment through the Panama Canal. On an order from San Francisco for a car load of corn the goods were sent by rail to New York, where they were transferred to vessel. By this route the buyer was saved \$150 in freight.

Some interesting impressions are given by Chief Dairy Inspector H. S. Mesloh growing out of his visit to the third annual convention of the International Association of Dairy and Milk Inspectors, in conjunction with the recent national dairy show at Chicago. After commenting upon the large attendance by officials from all parts of the United States, he says: "One of the most important points brought up and discussed was the necessity of co-operation between inspection officials and dairy product producers. The dairyman cannot produce strictly hygienic milk in competition with ordinary milk, and the consuming public needs to be educated to the fact that first-class sanitary milk at from 10 cents to 15 cents per quart is still cheap in point of food value as compared with other food products at the now prevailing prices. It was shown that milk produced strictly according to provision on the score card cost 6 and 2/3 cents per quart to place it on the market. The work to obtain uniformity of standards was endorsed, which was shown to be necessary to promote order from chaos among dairymen, it appearing from the report of committee that there are as many different standards as there are states and cities enforcing them, in many items in

their respective codes. The United States government dairy farm score card was endorsed to be used by officials in the inspection of farm dairies wherever applicable. The necessity of grading cream and milk from a sanitary viewpoint was discussed and the conclusion reached that the formulation of some standard is necessary."

Educational work of the food department through public addresses is of growing interest. B. S. Bartlow, chief of division, was the speaker in a lecture course at Richland Centre, under the auspices of the Richland High School, which is seeking by this means to meet the expenses of installing an agricultural laboratory. His talk was on the general activities of the department, in which he incorporated part of the address which has proved so instructive on other occasions on "Frauds in Marketing." Mr. Bartlow was also called to address a special convention of the Ohio Bottlers' Association, the third week in November, which had met to the number of 80 members to consider legislative matters during the coming winter. The bottlers are enthusiastic over the new sanitary code which they adopted some months ago at the instance of the department, and wish to further advance the standard of their business along the same lines. Their regular annual convention will be held in Columbus in February.

Chief Inspector Mesloh, of the bureau of dairies, had an appreciative audience in the Ohio Association of Creamery Owners and Managers, which met here the latter part of November. During the year ending Nov. 15 the bureau inspected 1,413 creamery and dairy establishments, and samples of dairy products taken and subjected to test or analysis numbered 734. The cream test and butter-fat test scales tested were 230.

The list of articles passed upon by the food department during the past month included butter, butter color, cheese, drugs, extracts, flour, hamburger, lemon soda, maple syrup, milk, mince meat, tobacco, vinegar and eggs. Sixty-six samples were found pure or o. k. and 41 impure, the whole number of analysis being 107. There was a grist of affidavits and a number of prosecutions, but other work of the department has withheld activity in some degree along these lines. Following preparatory and educational work, a very vigorous campaign will prevail throughout the winter.

Just at the present time the oyster is in the limelight before the eyes of the food inspectors. The department holds that when sold in can or bulk anything less than 12 per cent of solid oyster is a clear evidence of added water, making prosecution necessary. In the past before the food authorities took up the abuse, oysters usually sold upon the market had a general average of water at approximately 86 per cent. The standard of 12 per cent is so low that almost under every possible conditions connected with the sale of oysters it is impossible to violate the law unless water is actually added.

A document is in course of preparation dealing with the storage egg question. It is determined to break up the deception in this matter which exists widely in the winter season. Farmers in many instances are guilty of packing eggs by the use of preservative during the laying period and releasing them to the market as fresh eggs when the price is high. In such frauds, as well as those practiced by cold storage and commission men, prosecutions will be made whenever detected, and notice is to be served upon all to that effect.

All department rulings to date have been issued in convenient booklet form, suitable for being carried in the pocket, a large edition having just been received from the printer. This will greatly simplify the work of posting manufacturers of food products on their legal duties toward the consuming public.

S. E. Strode, commissioner in charge of the dairy and food division, will have his annual report ready to submit to the Governor within the next few weeks. It will include the individual reports of the several bureaus under him, and the document as a whole will form part of the report of the Agricultural Commission, of which the pure food service is a part.

The opinion prevails that the new state administration which takes hold in January will not effect the food department in its relations to the Agricultural Commission, as this plan has proved highly advantageous, both in economy and efficiency. It would be a misfortune if there was an attempt to return to the old system. In no year in its history has the department made such strides as that covered by the form of administration which now prevails.

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PENNSYLVANIA CORRESPONDENCE.

(From Our Staff Correspondent.)

HARRISBURG, PA., Nov. 30.—Pennsylvania's cold storage regulation act, which has been more or less in the limelight since it went into effect in August of 1913, bids fair to be one of the storm centers of the legislative session which begins on January 5. Opposition to the periods of storage has been keen ever since the enforcement of the act commenced and the activity of the state agents in repressing attempts of retailers to sell cold storage food without the required placard has rather intensified things. The cold storage warehouse people, while giving the state authorities all facilities in their power for enforcing the act and co-operating, have been seeking a judicial determination of the constitutionality of the act and a general combination of circumstances has been created in which the act will naturally come to the front.

It is not believed for an instant that the act will be repealed, but some changes in the periods for storage are certain to be recommended by the legislative commission which will take up the work laid out for it eighteen months ago within the next fortnight. It is the plan of this commission to make some inspections of warehouses and to hear the complaints. The commission was created as a sort of sop to the opponents of the cold storage act, but has thus far accomplished very little. Perhaps it will make up for it in the next few weeks.

Chemists of the State Dairy and Food Division spent a couple of days in conference with Commissioner James Foust at the capitol last week and discussed their experience in enforcement of the cold storage law, which requires them to make expert inspections of the premises of each holder of a license, especially in regard to sanitation. As a rule the reports indicated a general effort on the part of managers to lend all assistance possible in enforcing the act and careful note was made of suggestions made by managers and superintendents. It is likely that the fight will be made not by cold storage people but by the users of storage who object to the periods and who are combating the ideas of state officials who are endeavoring to break up shifting of products from one state to another.

Gossip regarding the attitude of the next administration on food legislation is rife about the capitol, but it is believed that no very radical changes will be permitted and that there will be an effort made to meet advocates of simple and fair laws more than half way. The usual raft of food legislation is expected to start early, but as Dr. D. P. Gerberich, of Lebanon, who has had wide experience in food legislation, will probably be the chairman of the senate committee on public health, the food bills will be carefully scanned.

The reappointment of James Foust as dairy and food commissioner is generally expected about the capitol. He has served since 1907 as commissioner, having been a special agent of the division for some time prior to that.

Reduction of the weekly hours of labor for minors is anticipated and for once the dominant political party, the advocates of "child labor" legislation and the manufacturers and labor leaders appear to be more or less in accord. The limit is now 58 hours and it is the plan to make it 52, although it will probably cause some debate. The indications are that attempts will be made to reduce the limit for women from 54 to 52 hours. Not so much is likely to be heard about standing up for the working girl and other catchy phrases heard two years ago because the recent election relegated a number of men who employed them over time to the political scrap heap and the recent industrial conference held here foreshadowed efforts to get together and talk things over in a fair spirit instead of shouting names from house tops.

Pennsylvania canners meet here tomorrow for their annual meeting and Dr. John Price Jackson, state commissioner of labor and industry, and others connected with his department will discuss problems attending inspection and the enforcement of the labor laws. Comparatively few reports indicating anything out of the way in either the equipment, sanitation or employment methods of the canneries of the state have been reported and they have been in very minor instances. In fact, Dr. Jackson said to me a few days ago that the conditions in the state were nothing that called for comment and that it would be hard to get "horrible examples" such as have been dug up in other states.

The industrial welfare and efficiency conference, which occupied a couple of days during the middle of the month, brought together about 2,000 persons representing every diverse element in the industrial fabric and standards of safety for almost every line of industry were discussed. It is the

plan to have volunteer committees representing employers and employes draft rules for safety and sanitation for each line and to have the Industrial Board act on them, approval carrying with it the force of law. The food preparation industries were given attention. Throughout the conference there was manifested a general belief that the passage of the proposed workmen's compensation act would be early in the session, but that a state form of insurance to protect the employer would be provided.

State hotel men are getting ready to bring to the attention of the next legislature some of the inconsistencies in acts relative to labor, the women's employment law having played havoc with the working schedules of people in every hotel in the state.

One of the surprises of the year on Capitol Hill has been the big issue of oleomargarine licenses. Thus far 2,400 have been issued. This is eight times the number issued seven years ago.

Receipts of the dairy and food division for the month of October amounted to \$5,221.49, of which over \$5,000 came from oleo licenses. The income of the division for this year will run close to a quarter of a million dollars. The whole allowance to run the division for two years is not two-thirds of that sum.

SALT LAKE CORRESPONDENCE.

SALT LAKE, Nov. 30.—Following the discovery by Willard Hansen, State Dairy and Food Commissioner, that the Ogden plant of the Amalgamated Sugar Company has been using tallow in boiling beet sugar and that this tallow came from renovating tanks, hide houses and junk houses, the various sugar companies of the state were, on Nov. 25, served with notice that nothing but edible tallow must be used hereafter, on penalty of severe prosecution.

Since the discovery that rotten tallow was being used in the manufacture of sugar, the State Food Department has left no stone unturned to learn, if possible, who is responsible for the use of the tallow. While investigation has shown that the sugar company was somewhat careless, it also showed that some tallow of this character had been rejected and that the sugar company officials are willing to do the right thing from now on and use either the highest grade of edible tallow or cottonseed oil. So far, no sufficient evidence has been obtained that would make prosecution possible.

Blame for the use of this tallow seems to rest upon the middlemen, the Ogden Paint & Glass Company, but officials of this firm deny knowledge that the tallow was bad and state it was sold to them by persons who claimed it was good. While Commissioner Hansen says that the scent of the tallow used was strong enough, he has only traced it in a general way to several slaughter houses, hide houses and junk firms, and so far has no evidence to prove that these firms knew what it was to be used for.

Mr. Hansen obtained his clue regarding the tallow in the manufacture of sugar from the remark dropped by an old farmer who said that he had seen some "stinking barrels come from the sugar factory and wondered whether they were using tallow in the sugar manufacture." The investigation followed and the Commissioner learned that, although some of the decomposed tallow had been rejected as unfit for use, much of a questionable character was employed even then.

The sugar company's defense was their invoices, which proved that the tallow had been sold to them as "edible tallow," and that their vigilance had kept out the worst. The company has been using about 400 pounds a day, but agreed to cut down to but 100 pounds of the best edible tallow and use hereafter mostly cottonseed oil. This company also has a plant at Lewiston, Ida., and Logan, Utah, and has promised the same thing for these plants. Other sugar companies are using cottonseed oil exclusively, Commissioner Hansen learned.

In co-operation with F. B. Raynor, United States Food and Drug Inspector in charge of the federal work in Utah, the state dairy and food department has seized a large shipment of English walnuts from California, sent to Salt Lake for the holiday trade. A total of about 600 pounds was seized, most of which are believed to be unfit for food. Most of them seem to be culled nuts and are wormy. Mr. Raynor has submitted samples to his chief at San Francisco for a test, before taking any action.

Commissioner Hansen is now working on his biennial report to Governor William Spry and expects to have it in the executive's hands by Dec. 15. The report will not be printed until Jan. 1.



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